IEOM

2nd World Congress on Industrial Engineering and Operations Management

~Windsor, Canada

ORGANIZER

IEOM Society INTERNATIONAL

HOST & VENUE

University of Windsor

October 14–16, 2025

Sponsors and Partners

University of Windsor

Greater Detroit Section ASQ The Global Voice of Quality™

Automotive Division ASQ The Global Voice of Quality™

ESD THE ENGINEERING SOCIETY OF DETROIT FOUNDED IN 1895

AIRBUS

AMATROL

AThingz Autonomous Supply Chain.

DAIKIN

EATON Powering Business Worldwide

FUTEK

hexaly

Ford

SIEMENS

TOOLINGTECH GROUP

Lawrence Technological University

B.E.S.T Innovation University

BINGHAMTON UNIVERSITY STATE UNIVERSITY OF NEW YORK

EASTERN MICHIGAN UNIVERSITY

FLORIDA POLYTECHNIC UNIVERSITY

UNB EST. 1785 UNIVERSITY OF NEW BRUNSWICK

WAYNE STATE College of Engineering

UNIVERSITY OF THE DISTRICT OF COLUMBIA 1851

Organizer

IEOM Society

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

Industrial Engineering and Operations Management Society International

IEOM Society International, 21411 Civic Center Dr., Suite 205, Southfield, Michigan 48076, USA
Phone: 1-248-450-5660, Email: info@ieomsociety.org

Welcome to the Second World Congress on Industrial Engineering and Operations Management at the University of Windsor, Canada, 2025

To All Conference Attendees:

On behalf of the IEOM Society International, we welcome you to the **Second Industrial Engineering and Operations Management World Congress** at the University of Windsor, Ontario, Canada, on October 14-16, 2025. The conference will focus on artificial intelligence (AI) and digital manufacturing transformation, with the theme: "Emphasis on AI & Digital Supply Chains in Global Uncertainty." The three-day event at the University of Windsor will serve as a platform for students and professionals to engage with leading academics, researchers, and practitioners from around the globe. Key focus topics include Artificial Intelligence (AI) in manufacturing, Industry 4.0 and Digital Twins, IoT, simulation, data analytics, and automation, interdisciplinary advanced manufacturing, and global and local supply chain transformation. We received 277 submissions from 35 countries, of which 182 papers and abstracts were accepted for presentation.

This conference will address many of the issues concerning AI in manufacturing and supply chain digitalization. The IEOM Society is delighted to have the following keynote speakers at the conference:

1. Dr. Bill Van Heyst, Dean, Faculty of Engineering, University of Windsor, Canada
2. Mr. Vladimir Franjo, P.Eng., Regional Director – Ontario Cross Regional Team, Advanced Manufacturing Sector Team Director, Bioproducts Sector Team Director, National Research Council Canada – Industrial Research Assistance Program (NRC-IRAP), Windsor, Ontario, Canada
3. Mr. Ryan Donally, President and CEO, Windsor-Essex Regional Chamber of Commerce, Windsor, Ontario, Canada
4. Dr Vedat Verter, Professor & Stephen J.R. Smith Chair of Management Analytics, Smith School of Business, Queen's University, Kingston, Ontario
5. Mr. Benjamin Saltsman, Director, Advanced Manufacturing Innovation, Magna International Inc.
6. Dr. Anjali Awasthi, Professor, CIISE, Concordia University, Montreal, Canada and Past President, Canadian Operations Research Society,
7. Dr. Andrew Jardine, Emeritus Professor, Industrial Engineering, University of Toronto, Canada
8. Dr. Bruce Minaker, MAME Department Head, University of Windsor, Ontario, Canada
9. Ms. Lisa Lortie, Vice President, Light Duty Truck Program Planning, Stellantis, Auburn Hills, Michigan, USA
10. Mr. Lee R. Lambert, A Founder of the PMP, PMI, Powell, Ohio, United States
11. Dr. Bruno Agard, Full Professor, Department of Mathematical and Industrial Engineering, Ecole Polytechnique, Montreal, Canada
12. Dr. Pengyi Shi, Associate Professor, Mitch Daniels School of Business, Purdue University, West Lafayette, Indiana, USA
13. Dr. Osman Alp, Professor, Haskayne School of Business, University of Calgary, Calgary, Alberta, Canada
14. Dr. Leandro C. Coelho, Professor and Canada Research Chair in Integrated Logistics, Université Laval, Quebec, Canada

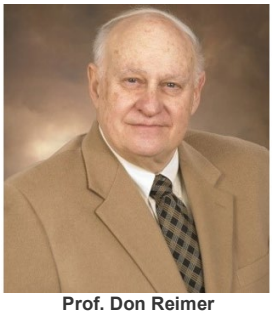
The IEOM Society is an international professional organization that operates in 151 countries. We are a student-focused organization with 293 student chapters in 60 countries. We are delighted to hold the Second World Congress at the University of Windsor campus. Participation in the conference includes 30 countries from around the world, from industry and academia. Students will participate in various competitions. Plenary and panel sessions are on AI in manufacturing, the future of manufacturing, the global supply chain, and digital transformation. The IEOM Society and its Global Council greatly appreciate the support of our conference Chair, Professor Walid Abdul-Kader.

We would also like to thank sponsors, university partners, organization partners, authors, reviewers, keynote speakers, panelists, track chairs, advisors, the committee, and the many volunteers who have given so much of their time and talent to make this unique international conference on advanced manufacturing and vehicle electrification an overwhelming success.

Our very best wishes to all of you for a successful and enjoyable congress in Windsor, Ontario, Canada.

Dr. Walid Abdul-Kader
Conference Chair
Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering
University of Windsor, Canada

Dr. Ahad Ali
Conference Co-Chair
Associate Professor, Director of the Doctor of Engineering in Advanced Manufacturing, and Director of IE Program
Lawrence Technological University
Executive Director of IEOM Society



Prof. Don Reimer
Conference Co-Chair
Chief Operating Officer
IEOM Society International
Southfield, Michigan, USA

Keynote Speakers

Day 1 - Tuesday, October 14, 2025

10:00 – 10:10, Tuesday, October 14, 2025 – Conference Chair Welcome Message:

Dr. Walid Abdul-Kader
Professor
Department of Mechanical, Automotive and Materials Engineering
Faculty of Engineering
University of Windsor
Windsor, Canada

Walid Abdul-Kader is Professor of Industrial Engineering at the University of Windsor. He is also the Director of the Systems Optimization Research Laboratory in the Faculty of Engineering. His research works relate to performance evaluation of manufacturing / remanufacturing systems prone to random failure. Dr. Abdul-Kader received a bachelor's degree in industrial engineering from the University of Québec in Trois-Rivières, a master's degree in mechanical engineering from École Polytechnique de Montréal, and a PhD degree from Université Laval, Québec, Canada. His research works are published in various peer-reviewed journals in his field and cited by a worldwide audience of researchers. Prior to his academic career, he worked as industrial engineer for several years in manufacturing companies. He also was executive director of transfer of production technologies from large companies and universities to SMEs specializing in parts production for the automobile and aeronautical manufacturing sectors. Dr. Abdul-Kader is a Registered Professional Engineer in Ontario and member of the Canadian Operational Research Society of Canada.

10:10 – 10:20, Tuesday, October 14, 2025 – IEOM Society Welcome Message

Professor Don Reimer
Chief Operating Officer
IEOM Society International
Southfield, Michigan, USA

Professor Don Reimer is the Chief Operating Officer of the IEOM Society International. He is a managing member of The Small Business Strategy Group, LLC, and works as an adjunct professor at Lawrence Technological University. Professor Reimer holds a BS in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from the University of Detroit/Mercy. He has been recognized as a professional management consultant with over 45 years of experience in working with closely held businesses. He has taught courses in entrepreneurship, management, corporate entrepreneurship, and innovation for engineers. Professor Reimer served as a member of the Minority Economic Development Committee of New Detroit. He has served as a KEEN Fellow for The Kern Family Foundation. He is a member of the Lawrence Tech Alumni Board of Directors and has been elected a Fellow of the IEOM Society. He visited 17 countries to organize IEOM conferences. He is coordinating IEOM student chapters around the world.

10:20 – 10:40, Tuesday, October 14, 2025 – Host University Welcome Address:

Dr. Bill Van Heyst
Dean
Faculty of Engineering
University of Windsor

Dr. Bill Van Heyst is the Dean of the Faculty of Engineering at the University of Windsor. His research interests include air quality issues associated with agricultural practices, development of clean air technologies,and solid-state heating and cooling. Dr. Van Heyst is a Registered Professional Engineer in Ontario and a member of the American Society of Agricultural and Biological Engineers and the Canadian Society for Bioengineering.

11:00 – 11:40, Tuesday, October 14, 2025 – Opening Keynote:

Vladimir Franjo, P.Eng.
Regional Director – Ontario Cross Regional Team
Advanced Manufacturing Sector Team Director
Bioproducts Sector Team Director
National Research Council Canada – Industrial Research Assistance Program (NRC-IRAP)
Windsor, Ontario, Canada

***Presentation Title*: Scaling Smarter: Productivity and Innovation in Canadian Manufacturing SMEs**
Subtitle: Unlocking growth through technology, process improvement, and workforce engagement

11:40 – 12:20, Tuesday, October 14, 2025 – Keynote III:

Mr. Ryan Donally
President and CEO
Windsor-Essex Regional Chamber of Commerce
Windsor, Ontario, Canada

Ryan Donally is a self-described “Swiss-army knife” of municipal government roles, having been trusted to lead economic development, government relations, mobility, and land-use planning in his short tenure with Lakeshore. With a diverse personal and professional background across academia, athletics, the arts, municipal government, and economic development, Ryan has a breadth of experience and network that allows him to be a great “connector” of talent across the region.

Ryan holds a Master of Business Administration (Strategy), and a Bachelor of Commerce (minor Political Science) from the University of Windsor, Odette School of Business. Ryan also is a Sessional Professor at the University in the areas of Strategy and Marketing.

12:20 – 1:00, Tuesday, October 14, 2025 – Keynote IV:

Dr Vedat Verter
Professor & Stephen J.R. Smith Chair of Management Analytics
Smith School of Business
Queen’s University
Kingston, Ontario
Canada K7L 3N6

Presentation Title: Improving Mental Healthcare by deploying AI and OR

Vedat Verter joined Smith School of Business in August 2022. Prior to joining Queen’s University, he was the McConnell Endowed Chair and Chairperson of the Supply Chain Management Department at Michigan State University. He also brings more than two decades of experience at Desautels Faculty of Management, where he was a James McGill Professor. Professor Verter specializes on the application of operations research and data analytics for assisting policy makers in the public sector. His primary areas of research are socially responsible supply chains and healthcare analytics. His earlier work focused on service chain design and hazardous materials logistics. Professor Verter’s work in these four areas culminated into eighty research articles in refereed journals and twenty book chapters. His research is well recognized through invited presentations around the globe. He is deeply invested in training scholars of the future, having supervised 18 PhD students and 25 post-doctoral fellows to date.

Professor Verter developed risk assessment models for dangerous goods shipments and policy making for rail and highway transportation of hazardous materials. His papers on designing transport networks for such shipments are considered seminal. In the area of sustainability, he focuses on evidence-based policy design for incentivizing firms’ product recovery initiatives; particularly for remanufacturing and recycling. He has published on the electronics industry extensively. In the area of healthcare, he focuses on preventive, primary, emergency, acute and chronic care processes, as well as their interaction.

In 2010, he founded and served as Director of the NSERC CREATE Program in Healthcare Operations and Information Management, a seven-University PhD/PDF training program across Canada. Professor Verter served as Editor-in-Chief of Socio-Economic Planning Sciences, an international journal focusing on public sector decision making for ten years starting 2011. Currently, he is a Senior Editor for the Sustainable Operations and Healthcare Management Departments in Production and Operations Management journal. Professor Verter was President of INFORMS Health Applications and Public Sector OR Societies in 2013 and 2018, respectively. In POMS, he served as Founding President of College of Healthcare Management, Vice President of College of Sustainable Operations, and an elected Board member in 2016-17.

October 15, 2025

9:40 – 10:20, Wednesday, October 15 – Keynote V

Benjamin Saltsman
Director, Advanced Manufacturing Innovation
Magna International Inc.

Benjamin Saltsman leads Data Analytics, Simulation and IoT department at Magna Corporate R&D. He and his team develop AI-based solutions based for data collected on the shop floor at Magna production divisions to improve quality, productivity and other operational metrics. He works extensively with start-ups and universities across the globe to bring new technologies to automotive reality. Saltsman has more than 25 years of automotive product and technology development experience. He joined Magna in 2016. Prior to that Saltsman held positions with Ford, Eaton and Dura. Saltsman also holds multiple patents in product design and software algorithms. Saltsman earned a Bachelor of Science in Mechanical Engineering from Moscow State Technical University. He additionally holds master's degrees in Materials Science from Stevens Institute of Technology and System Design & Management from Massachusetts Institute of Technology. He resides in Bloomfield Hills, Michigan, with his wife, but the house is divided as his two children are attending Michigan State University and the University of Michigan.

10:20 – 11:00, Wednesday, October 15 – Keynote VI

Dr. Anjali Awasthi
Professor, CIISE, Concordia University
President, Canadian Operations Research Society
Montreal, Canada

Dr. Anjali Awasthi is Full Professor at Concordia Institute for Information Systems Engineering (CIISE), in Concordia University, Montreal. She is currently serving as the President for CORS (Canadian Operations Research Society). In the past, she has served as Concordia University Research Chair (Tier-II) in Connected Sustainable Mobility Systems, CORS in the role of Vice-President, Education Chair, and jury member of student competitions. She is a senior member of ASQ (American Society for Quality), associate of LSRC (Loyola Sustainability Research Center), and regular member of CIRRELT (Centre Interuniversitaire de Recherche sur les Reseaux d'Entreprise, la Logistique et le Transport). She is also the recipient of Eldon Gunn service award (CORS 2018, Halifax) and IEOM Special Recognition Award (4th North American Conference on Industrial Engineering and Operations Management, Toronto, 2019). Her research paper entitled "A system dynamics simulation model to evaluate regulatory policies for sustainable transportation planning" received the best paper award from Taylor and Francis journal "International Journal of Modeling and Simulation". She is also a member of CORS Equity, Diversity and Inclusion (EDI) committee and promotor of STEM (Science, Technology, Engineering, and Math). She received her PhD in industrial engineering and automation from INRIA Rocquencourt and University of Metz, France and a Masters in Industrial and Management Engineering from IIT Kanpur, India. Prior to Concordia, Dr. Awasthi worked at University of British Columbia and University of Laval where she was involved in several projects on industrial applications of operations research. In France, she worked on many European research projects aimed at improving urban mobility in cities, city logistics and on cybernetic transportation systems. She has appeared on Radio Canada, CTV, Montreal Gazette, Le Devoir, The suburban, Metro and The Globe and The Mail.

Professor Awasthi's research interests lie in modeling and simulation, data mining, Information Technology and decision making, sustainable logistics planning, quality assurance in supply chain management and sustainable supply chain management. she is particularly interested in investigating how the new digital technologies are shaping our everyday decision-making process. Other key problems include how our cities can be relieved of ongoing traffic congestion, how should the sustainability policies be devised for improved mobility of goods and people, how to perform stakeholder collaboration planning, how to benchmark sustainability performance of organizations, and how autonomous vehicles can be brough mainstream to complement our transportation ecosystem. She is also interested in industrial applications of OR (Operations Research), and has published extensively in the area.

11:00 – 11:40, Wednesday, October 15 – Keynote VII:

Dr. Andrew Jardine
Emeritus Professor, Industrial Engineering
University of Toronto, Canada

***Presentation Title*: Research in Reliability and Maintenance: Benefits of University/Industry collaboration**

Some highlights: I will start by speaking in general terms about University/Industry collaboration then focus on three collaborations: UK MOD (frigates), Hong Kong Mass Transit (subway trains) Pearson airport (runway lights).

Professor Emeritus Andrew Jardine is an internationally recognized expert in engineering asset management whose research and teaching have impacted reliability engineering and industry best practices globally. As Chair of the University of Toronto's Department of Industrial Engineering from 1986-1995, he spearheaded its development into a world leader in academic/industrial collaborations through his creation of the Chair's Advisory Board. He is also Founding Director of the Centre for Maintenance Optimization and Reliability Engineering (C-MORE), where, with the support of a worldwide network of companies, his group produced journal publications, commercialized software packages, and provided postgraduate training to dozens of research students. In his efforts to make academic research accessible to industry practitioners, he has regularly offered training in physical asset management.

Although officially retired, Dr. Jardine continues to teach, consult with industry professionals, and work with C-MORE. His outstanding work represents the perfect marriage of academic rigor and industrial application. Jardine is a Fellow of the Institute of Industrial and Systems Engineers and the Canadian Academy of Engineering. His numerous awards, including the Plant Engineering and Maintenance Association of Canada's Sergio Guy Memorial Award for outstanding contributions to the maintenance profession, indicate the tremendous respect accorded him in his field.

11:40 – 12:20, Wednesday, October 15 – Keynote VIII:

Dr. Bruce Minaker
MAME Department Head
University of Windsor
Windsor, Ontario, Canada

***Presentation Title*: Prospects and Perspectives on Industrial Engineering Education in Windsor**

12:20 – 1:00, Wednesday, October 15 – Keynote IX:

Lisa Lortie
Vice President, Light Duty Truck Program Planning
Stellantis
Auburn Hills, Michigan, USA

Presentation Title: Stellantis Mobility Evolution

Lisa Lortie is the Vice President of RAM LD Planning at Stellantis. She is responsible to ensure long range plans are consistent with corporate objectives as well as core model and industrial strategies and leads cross functionally with Engineering, Brand, Finance and extended teams to evolve existing programs and develop new programs. She is tasked with developing plans that achieve targets including market coverage, value creation and corporate profitability while considering all of the constraints and optimizing expenses and synergies. Lortie has held positions of increasing responsibility within the company in areas including Engineering, Program Management, Planning, Lab Testing and Operations Management. She earned both a Bachelor of Applied Science in Mechanical Engineering and a Masters of Business Administration from the University of Windsor. Lortie was named one of the Top 100 Leading Women in Automotive in North America by Automotive News and is featured in a Chapter of SAE's book, "The Road Forward,". She is a member of several organizations supporting women in STEM including the Society of Women Engineers, Ontario Network of Women in Engineering, See It Be It STEM It, and also volunteers in the Engineers of Tomorrow organization, promoting STEM in the classroom as part of the Engineer in Residence program. Lortie is also actively involved with Diversity and Inclusion efforts at Stellantis including holding a Board Member position on the Women of Stellantis Business Resource Group. Additionally, Lortie also serves on the Dean of Engineering's Advisory Board at the University of Windsor.

October 16, 2025

9:40 – 10:20, Thursday, October 16 – Keynote X:

Lee R. Lambert
A Founder of the PMP, PMI
Powell, Ohio, United States

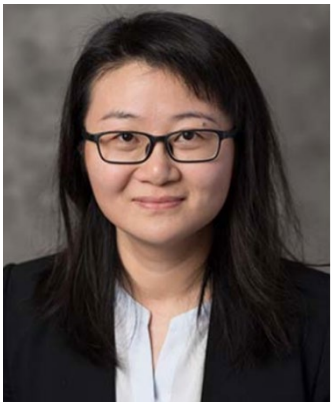
Lee R. Lambert is considered throughout the world as one of the project management profession's thought leaders. He has been spreading the PM word for over 50 years and was one of the Founders of the PMP. Lee has been recognized by the Project Management Institute as one of only 85 PMI Fellows and in 2024 he received the Distinguished Leader in Project Management Award from the IEOM Society. He brings a "real world" message to those hoping to excel in their role of managing projects. His unique and humorous style creates an enjoyable and productive learning environment. Lambert has implemented four enterprise-wide project management information systems and his work in developing High Performance Teams has been judged a miracle. He has prepared and delivered user training to thousands of employees at AT&T, IBM, General Electric, MicroSoft, Roche and countless others. His value-add consulting and training has been instrumental in creating successful PMOs to drive rapid implementation. He has provided "public" training programs for more than 50,000 professionals in 51 countries. Lee loves sharing his experience and knowledge on a variety of project management methodologies.

10:20 – 11:00, Thursday, October 16 – Keynote XI:

Dr. Bruno Agard
Full Professor
Department of Mathematical and Industrial Engineering
Ecole Polytechnique, Montreal, Canada

Presentation Title: AI & Data-Driven Supply Chains under Global Uncertainty

Bruno Agard is Professor of Industrial Engineering at Ecole Polytechnique de Montréal, Montreal, Quebec, Canada. He graduated in manufacturing from the Ecole Normale Supérieure de Cachan (1998). He has a master's degree (1999) and a PhD (2002) in industrial engineering from the Institut National Polytechnique de Grenoble, France. He joined the Department of Mathematics and Industrial Engineering in 2003. He is interested in design of products, processes and logistics and in applications of data mining in engineering. He is the director of the Laboratoire en Intelligence des Données (LID) and a member of CIRRELT and IVADO.



11:00 – 11:40, Thursday, October 16 – Keynote XII:

Dr. Pengyi Shi
Associate Professor
Mitch Daniels School of Business
Purdue University
West Lafayette, Indiana, USA

Pengyi Shi is an associate professor of management in the Supply Chain and Operations Management area in the Mitch Daniels School of Business at Purdue University. She is a faculty affiliate of the Regenstrief Center for Healthcare Engineering and the Integrative Data Science Initiative. Shi's research focuses on building data-driven, high-fidelity models and developing predictive and prescriptive analytics to support decision making under uncertainty in healthcare and service systems. One of her main research streams is to develop patient flow models to improve hospital operations and patient outcomes.

11:40 – 12:20, Thursday, October 16 – Keynote XIII:

Dr. Osman Alp
Professor
Haskayne School of Business
University of Calgary
Calgary, Alberta, Canada

Dr. Osman Alp is a Professor of Operations and Supply Chain Management and serves as the Program Coordinator for the Digitization for Innovative Supply Chains (DISC) Consortium at the University of Calgary. He has received his Ph.D. Degree in Industrial Engineering from the Industrial Engineering Department of Middle East Technical University in 2000. His main research areas include supply chain and inventory management; integrated problems of inventory management associated with transportation operations and capacity management; transportation of hazardous materials; and operations in energy. His articles appeared in several journals including Operations Research, Manufacturing and Service Operations Management, Production and Operations Management, Transportation Science, IIE Transactions, Computers & OR, European Journal of Operational Research, and International Journal of Production Research journals. He served as an Editorial Board Member of the Industrial Engineering Journal, a publication of Chamber of Mechanical Engineers, between 2006 and 2012. He is a member of the Editorial Advisory Board of Computers & OR journal. He also worked as a principle and assistant researcher in several applied projects sponsored by TUBITAK, Ministry of Science, Industry and Technology, TTGV, Oyak Renault, TOFAS-FIAT, Bell Canada, and Inland Cement Canada. He is a member of INFORMS, IIE, and YAD.

12:20 – 1:00, Thursday, October 16 – Keynote XIV:

Dr. Leandro C. Coelho
Full Professor
Chairholder, Canada Research Chair in Integrated Logistics
Department of Operations and Decision Systems
Faculty of Business
Université Laval
Quebec, Canada

Leandro C. Coelho is the Canada Research Chair in Integrated Logistics and a full professor at Université Laval. He specializes in industrial emissions reduction projects, particularly in the field of urban mobility, and his projects have saved several thousand tons of greenhouse gas emissions. He has published over 100 peer-reviewed scientific articles. He is a member of the College of New Scholars of the Royal Society of Canada and co-founder of the MobilOpt group on Mobility Optimization, which specializes in optimizing sustainable mobility and works closely with several cities, ministries and public transport providers. He has several years of experience in industrial projects in Canada and abroad related to logistics challenges, particularly in mobility and greenhouse gas emissions. He holds the Canada research chair in integrated logistics and is interested in applying logistics and optimization techniques for the benefit of business and society.

Submissions received from the following countries and territories

1. Algeria
2. Australia
3. Bangladesh
4. Bolivia
5. Brazil
6. Canada
7. China
8. Colombia
9. Ethiopia
10. Finland
11. Germany
12. Ghana
13. Haiti
14. India
15. Iran
16. Italy
17. Japan
18. Kuwait
19. Lithuania
20. Mexico
21. Morocco
22. Nigeria
23. Oman
24. Pakistan
25. Peru
26. Saudi Arabia
27. South Africa
28. South Korea
29. Taiwan
30. Thailand
31. Trinidad and Tobago
32. Turkey
33. UAE
34. United Kingdom
35. United States

Plenary

Plenary I, October 14 (Tuesday), 8:00- 9:20 am

8:00 – 8:20 am, October 14 (Tuesday)

Dr. Daw Alwerfalli
Professor and Director of Master of Engineering Management Program
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
College of Engineering
Lawrence Technological University
Southfield, Michigan, USA

Prominent professor, senior technical industry consultant and manufacturing engineering educator with a tremendous expertise in program and curriculum development in higher technical education. Highly experienced and dedicated community leader with great ability to work with an array of constituencies and coalitions in developing shared organizational vision to create and implement strategies aimed at advancing common causes to accomplish goals in fulfilment of the organization's mission. Highly perceived expert and industrial advisor. He is the founder of Manufacturing Engineering Solutions (MES) a consulting firm founded in 2000. He is senior technical consultant and strategist to the US manufacturing industry. MES developed executive training programs to numerous organizations such as Chrysler, Ford, GM, Exxon Mobil, Conco Philips, Marathon and Tier I and II suppliers to the US auto industry and other international companies. Published numerous research papers in many national and international conferences. Dr. Alwerfalli is a recipient of many prestigious awards including, the 2009 Arab American of the year in education, 1997 Lawrence Tech. Excellence in Teaching Award, 2004 Outstanding Engineering Faculty. He serves on many boards of directors, he also served on the Advisor Council of the Governor of Michigan for the Arab American and Chaldean Affairs Committee. He is currently serving on the steering committee of MAT 2 for dual education where he is a lead assessor to evaluate colleges for readiness in joining MAT 2 coalition of several German US based companies. Dr. Alwerfalli is also serving on the steering committee of "LIFT" Lightweight Innovation for Tomorrow, The committee is to develop innovative educational curriculum and skills for the next generation workforce for the Michigan, Ohio, Indiana and Tennessee under $148 Million, a federal grant for the year 2015-2016. For several years, Dr. Alwerfalli served as the academic advisor of many doctoral students who obtained their doctorate degrees and are currently leaders in the US auto industry.

8:20 – 8:40 am, October 14 (Tuesday)

Javed M Cheema
Co-Founder and Chief Data Scientist
MC2quare Ventures, LLC
Michigan, 48324 USA
Fellow, Japan Productivity Center
Fellow, American Society for Quality

Javed Cheema is Co-Founder and Chief Data Scientist at MC2quare Ventures, a consulting firm providing uncommon and unique perspectives based on specialized and complex analytics. Javed is a subject matter expert in global trend watch and advanced predictive analytics to Big-5 consulting firms including McKinsey Japan, KPMG EU, Deloitte UK, Bain, and Boston Consulting Group in US. Previously, Javed worked as Global Director of Lean Enterprise at Neapco Drivelines, a leading supplier of automotive propulsion systems. Before Neapco, Javed worked as Chief Engineer, Performance Enhancement at Altarum Institute, a premier consulting firm specializing in private, public and defense sectors' healthcare systems where he designed and implemented Kanban inventory management system covering all US Naval hospitals under Pacific Command. Javed also served as Senior Director of Quality and Operational Excellence at Eaton Aerospace, Alcoa-Howmet Air Power and Propulsion. SVP of Quality & Global Lean Six Sigma program at Molex Interconnect; Javed has extensive experience of managing corporate level Six Sigma and lean project portfolios in healthcare, pharmaceutical, aerospace, automotive and medical device industries.

Javed holds an MS in Industrial & Systems Engineering from University of Michigan, MBA from University of Central Oklahoma, MS in Manufacturing Systems from Tokyo Poly Technique, and an MS in Mechanical Engineering from UET, Lahore, Pakistan. Javed is a certified Six Sigma Master Black Belt (DMIAC), a certified Design for Six Sigma (DFSS) Master Black Belt and has actively mentored several Six Sigma projects. Javed is a Fellow of American Society (ASQ). A Certified Manager of Quality & Operational Excellence (CMQ/OE), Certified Six Sigma Black Belt (CSSBB), Certified Quality Engineer (CQE) and Certified Quality Auditor. Javed is Certified Professional Engineering Manager (CPEM) from American Society for Engineering Managers. Javed has been a sought-after speaker and presenter in various conferences around the world.

8:40 – 9:00 am, October 14 (Tuesday)

9:00 – 9:20 am, October 14 (Tuesday)

Plenary II, October 15 (Wednesday), 8:00- 9:20 am

8:00 – 8:20 am, October 15 (Wednesday)

Xuan (Jen) Zhao, Ph.D.
Professor, Operations and Decision Sciences
Lazaridis School of Business and Economics
Wilfrid Laurier University
Waterloo, Ontario, Canada
Adjunct Professor, Management Sciences
Faculty of Engineering
University of Waterloo
Associate Editor, Journal of Operational Research Society

Presentation Title: Managing Quality on Two-Sided Platforms

Dr. Zhao is a professor in Operations and Decision Sciences at Lazaridis School of Business and Economics at Wilfrid Laurier University. She holds a Ph.D. in the joint fields of Management Science and Transportation/Logistics from the University of British Columbia. Her research involves utilizing the tools of Management Science/Operations Research and Economics to model, analyze, and derive insights into problems in the areas of Supply Chain Management, Marketing/OM interfaces, Revenue Management, Entrepreneurships, Sustainable Operations, Behavior Operations, and Business Analytics. Her research papers (over 65) appear in prestigious refereed journals in operations such as Manufacturing & Service Operations Management (FT top 50), Production and Operations management (FT top 50), European Journal of Operational Research, as well as marketing journals such as Quantitative Marketing and Economics and Journal of Marketing and Consumer Research.

Dr. Zhao's research has been recognized and supported by National Sciences and Engineering Research Council of Canada (NSERC), Social Sciences and Humanities Research Council of Canda (SSHRC), as well as multiple provincial and international grants. Research funds (over $1.5 million) enable her to supervise numerous post-doctoral fellows, doctoral students, and master's students. Dr. Zhao has also won numerous awards and scholarships, including the Inaugural Lazaridis Research Excellent Award, Ministry of Research Innovation post-doctoral supervision award, High-Caliber Foreign Expert of Liaoning Province China, numerous faculty merit awards and course remission awards, Canadian Administrative Science Best Paper Award, Behavior Workship Best Paper Award, and Wiley top-cited paper award.

Beyond services within Laurier, Dr. Zhao has served in NSERC Discovery Grant Evaluation Group, SSHRC Insight Development Grant Adjudication Committee, inaugural NSERC Horizon program committee, as a university examiner of Lingnan University in Hong Kong. She is currently an Associate Editor of Journal of Operational Research Society, on the editorial review board of Production and Operations Management, and an Adjunct Professor at the University of Waterloo.

8:20 – 8:40 am, October 15 (Wednesday)

8:40 – 9:00 am, October 15 (Wednesday)

Suresh Done
CIO
SNA Technologies
Commerce, Michigan

Title: Frameworks to build Responsible AI

Abstract:

Artificial Intelligence (AI) has rapidly emerged as a transformative force across industries, with most organizations adopting AI in some form. However, many of these implementations are ad hoc, resulting in limited business value and, in some cases, flawed solutions. Common challenges include bias, lack of regulatory compliance, and insufficient governance—issues that undermine trust and long-term effectiveness. To realize the full potential of AI and ensure its responsible adoption, organizations need structured approaches and well-defined frameworks. In this presentation, Suresh and Biswan will explore proven frameworks designed to guide the development of Responsible AI solutions, enabling systematic, compliant, and robust implementations that deliver sustained business impact.

About the Speakers:

Suresh Done is CIO of SNA Technologies with 30+ overall experience and 20+ years of experience driving enterprise-wide digital transformation, AI strategy, and architectural innovation for Fortune 500 companies across diverse industries. He is providing consulting services on IT Strategy and Enterprise Architecture to many organizations across the globe. He developed many methodologies and frameworks including Agile Enterprise Architecture Methodology and Enterprise AI Architecture. Suresh had mentored thousands of architects across the globe on Enterprise Architecture, Scaled Agile and Artificial Intelligence. Earned "Company of the Month" honors from CIOReview in July 2015 and June 2021 for excellence in enterprise architecture, AI enablement, and strategic IT leadership. He had been included in Marquis Who's who biographical list for his entrepreneurial and philanthropic work.

Biswan has over 23 years of industry experience as a solution architect, designer, and implementer, as well as a strong passion for research and innovation in information science/technologies, quantum computing, business, and IT management, He has a strong focus and interest in IT/IS research areas within machine learning, data sciences, AI, deep learning, and quantum computing applications to solve real-world business problems. He has double PhDs in Computer science and Quantum computing and quantum communication theory in Industry 5.0. Biswan is a very senior member of IEEE as a senior member of Region 4 IEEE, and Biswan is an active student chair activity (SAC chair) in the IEEE-Chicago section and chair of SPX members for the better reach in research and innovations in science, technology, and quantum computing. Dr. Biswan is working

on quantum computing research at one of the large LiB battery manufacturing EV companies and applying QIS to solve the supply chain, EOL, and SOH in the battery segment.

9:00 – 9:20 am, October 15 (Wednesday)

Dr. Harun Rashid
Adjunct Professor
Wayne State University
Detroit, Michigan, USA

ID 237 Peeragogy and Heutagogical Framework for Teaching AI Ethics

Dr. Harun Rashid earned his M.A. degree from Dhaka University (Bangladesh) and University of Waterloo (Canada); and earned his Ph.D. from Wayne State University (Detroit). He has devoted his career in university teaching and research for over four decades – here and abroad – including Chittagong University and Dhaka University (Bangladesh), University of Waterloo (Ontario), Wayne State University (Detroit), University of Phoenix, Marygrove College (Detroit), and Wayne County Community College (Detroit). He aims at continuing to add more tools to his toolbox toward building strong professional learning communities at colleges and universities. He cares about being culturally responsive, and he continues to strive toward sharpening up his individual educational leadership knowledge, skills, and dispositions. His goal is to ensure consistency and precision in his strategic planning, decision making, and solution seeking. He focuses on enacting system-wide capacity-building processes in his area of concentration in the field of teaching and learning.

In addition, as the Director of Staff Mentoring and Coaching at a public charter school system for about 10 years, Dr. Rashid has been overseeing the faculty coaching, mentoring, professional development, and staff evaluation programs. He has also been conducting professional development training for teachers and instructional administrators. His goal is to assist in building, and being an important and effective part of, an impactful, healthy, growth-producing, innovative, and networked educational system that would ensure mastery-oriented mindset for all students in both core academic content and in the 21st century skills that would prepare them for college and tomorrow's world of work.

He has published in his areas of expertise – Philosophy and Education. He has been working – for about a decade – as a pre-publication professional reviewer of books published by Oxford University Press, McGraw-Hill Higher Education, and Routledge: Taylor and Francis Group. He is a K-12 educational administrator certified by Michigan Department of Education, and a certified Quality Assurance Review Team Chair of NCA (North Central Accreditation). He served as a panelist (along with two other panelists: David Schmidt, V.P. of Connections Education Inc; and Mack Moore from National Heritage Academies) on a symposium on ESPs, EMOs, and CMOs: What are these education management organizations, and what is it like to work for one at Central Michigan University: The Governor John Engler Center for Charter Schools in April 2014.

Dr. Rashid offered professional development workshops for Michigan Department of Education, Detroit Public Schools, Metro Detroit are Private Schools, APIAVote, Michigan Institute of Professional Psychology, Michigan Association of Public School Academies, Wayne State University, Wayne County Community College, Bangladesh University Grants Commission, Universities in Bangladesh: Brac University, Dhaka University, Chittagong University, Jahangir Nagar University, and CCN University – Comilla.

He has offered professional development workshops for all levels of educators and educational administrators on Differentiated Instruction; Sheltered Instruction Observation Protocol (SIOP); Quality School and Choice Theory; Effective Classroom Management; Learning Styles and Multiple Intelligences; Brain-based Learning; School Improvement; Teaching Critical Thinking; Reach Them Before You Teach Them; How to Get Parents on Your Side; Response to Intervention; Live Event Learning; and High Performing Teacher; Brain Based Ways We Think and Learn; Building Communication and Team Work in the Classroom; Classroom Management: Orchestrating a Community of Learners; Coaching Skills for Successful Teaching; Designing Motivation for All Learners; Discovering the Power of Live Event Learning; Meaningful Activities to Generate Interesting Classrooms; Professional Refinements in Developing Effectiveness; Purposeful Learning through Multiple Intelligences; Successful Teaching for Acceptance of Responsibility; Teaching the Skills of the 21st Century; and Cognitive Coaching: Making Faculty Better, NOT Bitter.

Plenary III, October 16 (Thursday), 8:00- 9:20 am

8:00 – 8:20 am, October 16 (Thursday)

E. Shirl Donaldson, Ph.D. PMP
Faculty Member
College of Innovation and Technology
University of Michigan Flint

Academia is the second career for E. Shirl Donaldson. Dr. Donaldson worked as a partner in a family-owned manufacturing firm resulting in exceptional insight into entrepreneurship, manufacturing, operations management, project management, quality systems, technology management and STEM education. Before returning to Purdue University in 2009 to pursue a Ph.D. in Industrial Technology, she held positions with technical and financial responsibilities. She brings these skills and experiences to every space she enters as she continues to teach and consult. In August 2021, Donaldson joined the College of Innovation and Technology as inaugural faculty at University of Michigan Flint. Previously, Dr. Donaldson has taught operations management, project management, supply chain, and quality systems at The University of Texas and Purdue University. Problem-solving is Shirl Donaldson's passion. Professor Donaldson is a certified project management professional (PMP) and an active member of Project Management International (PMI). Her current research agenda is highlighted in several community engaged projects such as Modifying Vehicles for Handicapped Children from a Student Perspective, Racial Equity and STEM, STEM Education and Donk Racing, Motorsports and Applied STEM, Leveraging Project Management for Student Success, Paper Ceiling Explorations, and Entrepreneurship in Underserved Communities.

8:20 – 8:40 am, October 16 (Thursday)

Dr. Sardar Asif Khan, P. Eng., PMP
Continuous Improvement Lead, Parts & Services, North America
Stellantis
Auburn Hills, MI, USA

Dr. Sardar Asif Khan is Vice President of Professional Engineers Ontario (PEO) and a recognized leader in the fields of continuous improvement, lean transformation, and supply chain optimization. With over two decades of diverse experience across industry and academia, Dr. Khan currently leads Continuous Improvement for Parts and Services, North America at Stellantis, where he leads end-to-end operational excellence initiatives across 22 distribution facilities. His leadership has generated multimillion-dollar savings while fostering a culture of innovation and sustainable improvement in complex manufacturing and supply chain environments. Since 2014, Dr. Khan has been an Adjunct Professor in the Faculty of Engineering at the University of Windsor, where he teaches and mentors graduate students in industrial engineering and lean systems. His teaching integrates real-world industry challenges with academic rigor, preparing future engineers to lead in both technical and regulatory environments. Dr. Khan holds a Doctor of Engineering in Manufacturing Systems from Lawrence Technological University (MI), an MBA from Central Michigan University, a Master of Engineering in Manufacturing Engineering from Wayne State University, and a Bachelor of Electrical Engineering from the University of Engineering & Technology, Pakistan. He is a licensed Professional Engineer and a Project Management Professional (PMP). Dr. Khan is a recipient of numerous honors, including the FCA Top Leadership Award, PEO Order of Honour, Ontario Volunteer Service Award, and the Engineer of the Year Award. He is also active in public service, serving as Director of the Windsor-Essex County Board of Health, Chair of the Automotive Product Design Advisory Committee at St. Clair College, and Warden of Camp 14, Corporation of the Seven Wardens. An advocate for engineering education and public interest regulation, Dr. Khan has been involved with PEO since 2006 and now contributes to shaping the future of engineering governance in Ontario as Vice President. His work exemplifies the fusion of strategic leadership, regulatory engagement, and academic excellence.

8:40 – 9:00 am, October 16 (Thursday)

9:00 – 9:20 am, October 16 (Thursday)

Panel Sessions

AI and Data Analytics Panel

2:00 – 3:30 pm, October 14, 2025

Panel Chair

Andrea Yzeiri, MMA
Chief Data & Analytics Officer and Lead AI Engineer
Picsume
Windsor, Ontario, Canada

Andrea Yzeiri is the Chief Data & Analytics Officer and Lead AI Engineer at Picsume, a revolutionary hiring platform that transforms traditional resumes into dynamic work profiles, powered by AI-driven matching algorithms and committed to bias-free recruitment. She is recognized as a pioneering force in artificial intelligence, data analytics, and cybersecurity, actively leading in the design and deployment of scalable,

ethical AI systems with an emphasis on fairness, transparency, accountability, and security. She holds a BComm in Supply Chain & Analytics (with thesis) and a BA in Political Science (Law & Politics) from the University of Windsor, and a Master of Management in Analytics from McGill University. At Windsor, Andrea was the first woman to complete an undergraduate thesis at the Odette School of Business and the first University of Windsor student to receive the Mitacs Globalink Research Award, conducting research in São Paulo, Brazil. Her IEOM publication record includes "Composite Index Creation Using AHP and DEA: Efficiency Optimization for Industries" with Dr. Mohammed Baki at the North American IEOM Conference.

Over her ten-year career across technology, academia, healthcare, and defense, Andrea has delivered end-to-end AI solutions that balance predictive performance with ethical integrity. Notably, she led the engineering of a serological data scraper used in a clinically deployed kidney-matching algorithm at the McGill University Health Centre Research Institute, and developed a custom aerospace-specific search engine for AeroMontreal.

In 2025, Andrea was named one of the Top 25 Women Chief Data and Analytics Officers in North America by Women We Admire, in recognition of her leadership in responsible, inclusive data innovation. A sought-after speaker and advocate, she has presented at events including Google DevFest Windsor (2024), the Odette School of Business' International Women's Day Driving Business Success with Technology event (2025) and served as a judge for STEM Fellowship's 2025 High School Big Data Challenge in AI, championing ethical AI adoption, ML security, and women's representation in STEM.

Andrea is also a dedicated educator, currently a sessional lecturer at McGill University, delivering Python and analytics workshops to graduate students, and former teaching assistant at Odette, supporting business analytics education. Her commitment to community impact extends to her service on boards such as United Way/Centraide Windsor–Essex County. Andrea has received sixteen honours and awards for her research, academic achievements, leadership and community impact.

Panel Speaker I

Chandrika Abhang, MSc (Eng)
Director of Product Management and R&D – Americas
Webasto Group
Detroit, United States

Chandrika Abhang is a global leader in automotive innovation with over a decade of experience driving electrification, product strategy, and R&D across North America, Europe, and Asia. As Director of Product Management and R&D –Americas at Webasto Group, she leads cross-functional teams in developing intelligent thermal systems, high-voltage battery technologies, and mobility solutions for diverse sectors including automotive, military, and marine. Her strategic leadership has powered multimillion-dollar growth initiatives, market expansions, and digital product launches that have boosted revenue and improved operational efficiency. Chandrika is also a passionate advocate for AI and digital transformation in manufacturing, applying data-driven approaches to portfolio development and operational excellence. Beyond industry, she brings a strong commitment to community development, having served on nonprofit boards and as a UN volunteer. She holds a Master's in Mechanical Engineering and completed executive education in product management at the Kellogg School of Management. At the IEOM Congress, she will speak on using AI and innovation to build resilient, intelligent supply chains in times of disruption.

Panel Speaker II

Gursimmer Banwait
R&D Engineer
Persico USA
Michigan, United States

Gursimmer Banwait is an R&D Engineer at Persico USA, where he focuses on bridging traditional manufacturing practices with modern AI driven innovations. His industry experience spans biotechnology, hardware technology startups, and SaaS, where he has applied mechatronics engineering to bring research based solutions into practical, scalable applications. At Persico, he is developing an internal tool that leverages company CAD and fiscal data to create retrieval augmented generation systems for automated quotation building, significantly reducing turnaround times. He is also exploring the development of an AI co pilot for jig and fixture design, with a focus on design for manufacturing and assembly checks, enabling junior engineers to better understand and apply traditional manufacturing techniques. Currently pursuing a Master of Computer Science at Georgia Tech with a specialization in computer vision, Gursimmer combines academic research with hands on industrial problem solving. At the IEOM North American Congress, he will share his work and encourage the manufacturing industry to adapt proven tools from programming and academia to enhance capabilities across the supply chain, including among third tier suppliers.

Panel Speaker III

Joe Youssouf, BSE
Lead Customer Data Scientist
Oden Technologies
New York, United States

Joe Youssouf is the Lead Customer Data Scientist at Oden Technologies, where he develops AI-powered solutions that optimize manufacturing processes and improve efficiency on the factory floor. His work on ProcessAI delivers real-time control recommendations that reduce waste, increase throughput, and enhance safety across global operations. Joe has also contributed to Oden Forge, an internal LLM platform that enables domain-specific natural language insights from complex time-series data. Prior to Oden, he scaled predictive maintenance systems for over 15,000 heavy-duty vehicles at Preteckt, where his models saved thousands in annual maintenance costs per vehicle. With a background in electrical and computer engineering and a strong foundation in statistics, Joe combines deep technical expertise with practical, real-world impact. He has helped organizations avoid costly infrastructure mistakes, reduce energy waste, and build data systems that support critical business decisions. At the IEOM North American Congress, Joe will share insights on integrating AI into digital supply chains, drawing from his experience navigating the challenges and opportunities of Industry 4.0.

Panel Speaker IV

Dr. Ahmed Abou Gharam
Design for Reliability Director
Molex
Rochester, Michigan, USA

Dr. Ahmed Abou Gharam is an internationally recognized expert in Design for Reliability and AI powered analytics with over a decade of leadership experience in the automotive and microelectronics sectors. As the Director of Reliability Engineering at Molex, he leads global teams in embedding predictive analytics and machine learning into reliability testing workflows, particularly through advanced methods such as Accelerated Life Testing and test to failure protocols that mirror real world usage scenarios. He champions the integration of AI driven reliability prediction models that optimize component designs to withstand extreme conditions including heat, vibration, corrosion, and complex duty cycles found in modern vehicles. Dr. Abou Gharam is a thought leader in applying AI not simply as a technological upgrade but as a transformative tool that advances Design for Reliability from conventional design test fix cycles toward proactive, data guided reliability assurance. His published writings and leadership in industry surveys emphasize the importance of AI based tradeoff modeling and reinforce his role in shaping the future of reliability in digital manufacturing. Drawing on both deep technical insight and strategic vision, Dr. Abou Gharam bridges rigorous research with practical innovation to elevate how products are engineered for trust, endurance, and real world performance.

AI in Manufacturing Panel

4:00 – 6:00 pm, October 14, 2025

Panel Chair
Dr. Neil Murray
Engineering Manager
ZF
Farmington Hills, Michigan, USA

Dr. Neil Gordon Murray Jr. is an Engineering Manager with ZF Corporation in Passive Safety Electronics. He is also an Adjunct Professor in Industrial Engineering in the A. Leon Linton Department of Mechanical Engineering at the Lawrence Technological University, Michigan, USA. He earned B.S. in Mechanical Engineering Technology from Saginaw Valley State University, Saginaw, Michigan, Masters in Manufacturing Systems Engineering from University of St. Thomas, St. Paul, Minnesota and Engineering Doctorate in Manufacturing Systems Engineering, (DEMS) from Lawrence Technological University, Southfield, Michigan. He is a certified Six Sigma Master Black Belt with specialization in Design for Six Sigma. He has published journal papers and is also the author of Witness Horizon 25 Simulation Modeling, Rational Process Design. His research interests include theory of invention and creative problem solving, simulation modeling, digital twinning, Edge Computing and Lean Manufacturing. He is a member of IEOM, SPE and IEEE.

Panel Speaker I

Alex Baker
Sr. Applications Engineer
Moldex3D Northern America, Inc.
Novi, Michigan

Title: Transforming Plastics Simulation with Automation, Optimization, and AI

Bio

With over 9 years of experience in Plastics Molding Simulation at Moldex3D, Alex Baker is an expert in applying simulation for several different industries, including automotive, connectors, medical devices, and optics. Alex virtually trains users on the Moldex3D software, passing on knowledge of how to translate simulation results to solve real-world problems, and he also runs Benchmark Testing, provides Consultation, and Alpha Tests new features for public release. He received a Bachelor of Science (B.S.) in Mechanical Engineering from Penn State Erie, The Behrend College.

Abstract:

The plastics simulation industry is undergoing a significant transformation, driven by the integration of cutting-edge technologies. This presentation explores the impact of intelligent automation, artificial intelligence (AI), and real-time process optimization on the plastics manufacturing sector. By

leveraging these innovations, manufacturers can achieve substantial improvements in operational efficiency, waste reduction, and overall product quality.

This presentation will detail the application of AI through Moldex3D to streamline the simulation process. It will introduce new tools within Moldex3D iSLM designed to manage and utilize large local data sets for future projects, enhancing the predictive capabilities of simulations. Furthermore, this presentation will review existing tools that have proven effective in increasing the efficiency of routine simulation tasks.

The content is aligned with the IEOM Society's focus on "AI & Digital Supply Chains in Global Uncertainty" by providing insights into the application of AI and automation for a more resilient and efficient manufacturing process.With over 9 years of experience in Plastics Molding Simulation at Moldex3D, Alex Baker is an expert in applying simulation for several different industries, including automotive, connectors, medical devices, and optics. Alex virtually trains users on the Moldex3D software, passing on knowledge of how to translate simulation results to solve real-world problems, and he also runs Benchmark Testing, provides Consultation, and Alpha Tests new features for public release. He received a Bachelor of Science (B.S.) in Mechanical Engineering from Penn State Erie, The Behrend College.

Panel Speaker II

Jd Marhevko
ASQ Fellow, Shainin Medalist, CSSBB, CMQOE, CQE, WiM HoF
Vice President Quality
Division U, Electronics & ADAS
ZF North America Inc.
Farmington Hills, Michigan

Title: Using AI & Digitization to Bust Silos in Problem Solving

Abstract: How do you connect teams with over a dozen unique quality problem solving processes across the full process of product design, development, launch and returns? This case study will show how AI & digitization were used to align the systems and enable a double digit reduction in problem solving time while simultaneously reducing repeated issues. See how you might help to make a difference.

Bio

Jd is VP of Quality for ZF's Electronics & ADAS Division. She has held multiple and progressive senior leadership roles in Operations, Quality, Lean and EHS. She has helped to turn around sites from bankruptcy to best in class. She's had four sites won the AME Excellence Award and one site win the Industry Week Best Manufacturing Plant of the Year. She is an adjunct professor for the University of Michigan in Operations and Lean. In 2020, Jd was inducted into the inaugural USA's Women In Manufacturing (WiM) Hall of Fame. Jd is an ASQ Fellow, Shainin Medalist, CMQ/OE, CQE, CSSBB and MBB. She holds a BSE and MSA. Jd is a Past-Chair of the ASQ QMD. Jd has co-authored several books and articles on Lean and Quality Systems.

Panel Speaker III

Panel Speaker IV

Advances in Vehicle Electrification and EV Technologies Panel

2:00 – 3:30 pm, October 14, 2025

Panel Chair

Saif Siddique
Engineering Manager
Power Electronics/ Power Converter
Stellantis
Auburn Hills, Michigan

As a technology leader, executing STELLANTIS electrification strategy to deliver exciting, class leading ZERO EMISSION vehicles for the iconic brands that offer advanced technology at affordable prices for global customers. Leading robust design for high voltage charging system, power converters with a high-level flexibility, in addition to component sharing across platforms, reduce complexity and deliver economies of scale, with each platform capable of supporting production to offer the most efficient solution for each vehicle category, from city-cars to pickup trucks, commercial vehicles and SUVs.

Global experience in engineering, manufacturing, quality, supply chain, and strategy development. Successfully launched numerous global programs with "Detroit Big Three" automakers. Managing high-volume manufacturing products including Power electronics, Electric drive system, HV battery system components, and vehicle integration.

Saif has a very diverse academic background. He has received a Bachelor in Agricultural Engineering, Masters of Science major in Rural Electrification, he also completed bachelor's in mechanical engineering from University of Michigan-Flint. Saif is currently serving as a member of the UM-Flint Engineering Industrial Advisory Board (EIAB).

Panel Speaker I

Dr. Sikder Kamruzzaman, PhD, SMIEEE
Professor of Networking and Cybersecurity
St. Clair College

Windsor, ON, Canada

Title: Towards Safe and Connected Mobility: Securing EV Ecosystems in the Era of 5G and IoT

Bio:

Dr. Sikder Kamruzzaman is a seasoned academic and researcher with over 25 years of experience in wireless communications, networking, and cybersecurity. He is currently a Professor of Networking and Cybersecurity at St. Clair College, Windsor, where he teaches and leads initiatives in automotive cybersecurity, cyber-physical vehicle systems, and wireless network security.

He completed his postdoctoral research in Indoor Localization and Industrial IoT at Toronto Metropolitan University, where he co-led multi-million-dollar NSERC- and OCE-funded projects on intelligent wireless positioning and scalable sensor networks for industrial automation. His expertise spans IoT, AI/ML, 5G networks, and secure distributed systems, with a strong focus on applications in connected and autonomous vehicles (CAVs) and electric mobility ecosystems.

Dr. Kamruzzaman has published extensively in journals, conferences, and book chapters, and has secured several Canadian research grants in smart transportation, industrial IoT, and cybersecurity. He has also held academic and research positions across Canada, South Korea, Saudi Arabia, and Bangladesh, alongside over five years of Canadian industry experience developing IoT-driven solutions for automotive and healthcare.

A Senior Member of IEEE, he has served as Vice Chair of the IEEE Toronto Section, Engineering & Human Environment Chapter (2019–2022), and actively contributes to the IEEE Vehicular Technology Society. He has also held leadership roles in program accreditation, curriculum design, and research supervision.

At the 2nd IEOM World Congress, he will speak on “Towards Safe and Connected Mobility: Securing EV Ecosystems in the Era of 5G and IoT”, sharing insights on how cybersecurity, IoT, and AI-driven intelligence can ensure the safety, resilience, and sustainability of next-generation electric vehicles.

Panel Speaker II

Dr. Kazi Atiqur Rahman
Senior Software Architect – V2X Technologies, , GNSS, Time Arch, PLC
General Motors
Michigan, USA

Dr. Kazi Atiqur Rahman is a Senior Software Architect and researcher specializing in automotive communication systems, PLC, V2X technologies, and real-time systems. He currently works at General Motors, where he designs PLC (EV), C-V2X, GNSS, Time and NFC architectures for Connectivity Hub Module in software-defined vehicles. With over 10 years of industrial experience and more than 8 years of academic and research involvement in Canada, Germany, and Bangladesh, Dr. Rahman has contributed to projects in vehicular networks, wearable computing, wireless communication security, and smart mobility applications.

He earned his Ph.D. in Electrical and Computer Engineering from the University of Windsor, Canada, an M.Sc. in Communication Engineering and Media Technology from the University of Stuttgart, Germany, and a B.Sc. in Electrical and Electronic Engineering from BUET, Bangladesh. A published researcher with journals and conference papers, and technical reports, Dr. Rahman has also taught at both undergraduate and graduate levels in different universities. His work has been recognized with numerous awards, including the Queen Elizabeth II Graduate Scholarship, Siemens Scholarship, Commonwealth Scholarship and competition prizes in robotics and smart grid innovation.

Panel Speaker III

Panel Speaker IV

Panel Speaker V

Future of Manufacturing – Innovation in Manufacturing Panel

4:00 – 6:00 pm, October 15, 2025

Panel Chair
Dr. Steven Marshall
CFD Senior Expert
Valeo Thermal Systems
Auburn Hills, Michigan

Dr. Steve Marshall is the Senior CFD Expert at Valeo Thermal Systems in Auburn Hills, Michigan USA. He began his career with Valeo in 1994 at their HVAC production facility in Gorseinon, Wales, UK, immediately after completing his BEng and PhD in Mechanical Engineering at the University of Swansea, Wales. He emigrated to Michigan with his family in 1999. Dr. Marshall has always strived to remain current with technological developments in simulation. Transportation Mobility and Electrification are no exception. He recently developed simulation techniques for modeling virus dispersion in city buses along with a simulation of a bus UVPurifier using Germicidal Irradiation as part of Valeo’s mobility initiative during the Covid pandemic. This directly helped Valeo’s production employees commute to their manufacturing plants more safely and also enabled civic transportation providers to keep the public safe on city buses. More recently as part of the electrification of automotive vehicles, Dr Marshall has been working on the simulation of dual layer and ram air control HVAC systems, both used to increase the vehicle’s mi/kWh for vehicles in the US and worldwide. Dr. Marshall plays as hard as he works, and enjoys renovating his family’s cottage in the upper peninsula of Michigan, running, skiing, and snorkeling, depending on the season.

Panel Speaker I

Panel Speaker II

Dr. M. Joseph Ogundu, Ph.D., MBA
Chairman/CEO
Emerald Global Consulting Inc.
Farmington Hills, Michigan

Dr. Joseph Ogundu is the Chairman/CEO of Emerald Global Consulting Inc., and he brings a wealth of experience in the areas of leadership, strategy development and deployment, risk management, project management, business process excellence, lean transformation, six-sigma, supply chain management, change management, industrial engineering, manufacturing/process engineering, quality assurance and business restructuring/turnaround. Dr. Ogundu is a quality and operations excellence practitioner with expertise in solving complex operations problems and delivering results. He provides operations excellence leadership, training and coaching in the following industries; automotive, oil and gas, manufacturing, consulting, energy and healthcare. Dr. Ogundu spent the early years of his career in leadership, engineering, and senior management positions as director and executive director at Country Coach Inc, process engineering manager at DaimlerChrysler AG, senior operations leader at Chrysler Corporation, facilities engineer and project manager at Ford Motor Company as well as senior product engineer at General Motors Corporation.

Dr. Ogundu was adjunct professor, Industrial and Systems Engineering at both Lawrence Technological University, Southfield Michigan and Oakland University, Rochester Michigan, and adjunct professor of Business Administration at Kettering University, Flint Michigan. He thought courses in both undergraduate and graduate levels including courses in Lean Systems Application, Quality Assurance and Control, Total Quality Management, Operations Research and Stochastic Processes, Manufacturing Processes, Supply Chain Management, Supplier Quality, Business Statistics, Lean Six-Sigma, Production Planning and Control, Materials/Inventory Management and Operations Management

Dr. Ogundu graduated with a Doctorate Degree in engineering and manufacturing systems and Masters in business administration from Lawrence Technological University, Master's Degree in Manufacturing Engineering from Wayne State University and a Bachelor's Degree in Industrial Engineering from University of Tennessee. Knoxville. He served as board member of Lawrence Tech University College of Management Alumni Association, Finer Cabinetry & Woodwork Inc., Citation Plastics, LLC., River State Foundation Inc., as well as Board member of Healthcare Management department at South University Novi, Michigan Campus, Vice President of Chapter Development Institute of Industrial Engineers SE Michigan/Toledo Chapter. Dr. Ogundu is the author of the book "The Relationship between Types of Waste and Operating Performance Measures, published by Lambert Publishing company.

Panel Speaker III

Panel Speaker IV

Women in Industry and Academia (WIIA) Panel sponsored by Ford Motor Company

2:00 – 3:30 pm, October 16, 2025

Panel Chair
Dr. Samira Keivanpour
Associate Professor
Department of Mathematics and Industrial Engineering
Polytechnique Montréal
Montréal, Canada

Samira Keivanpour is an associate professor in the Department of Mathematical and Industrial Engineering at Polytechnique Montréal, holding a B.Sc. in Electrical Engineering and an MBA in Operations Management from the University of Tehran, as well as a Ph.D. in Industrial Engineering from Université Laval, Canada. She also worked as a postdoctoral researcher and professional researcher in the Department of Mechanical Engineering at Université Laval. She has previously been a sessional faculty member at Thompson Rivers University. As a member of CIRODD and CIRRELT, she actively contributes to several research projects. Her expertise includes operations management, logistics, Industry 4.0, expert systems, and artificial intelligence, with a primary focus on the "Industry of the Future and Digital Society," and complementary interests in "Environment, Economy, and Society," as well as "Modeling and Artificial Intelligence." In this sense, she created and leads the Poly Circle X.0 Laboratory at Polytechnique Montreal. Her research focuses on digital innovation and sustainable operations, with key interests in circular economy and end-of-life product management, sustainable and circular supply chains, human-robot collaboration and smart automation in logistics, and the use of AI to drive sustainability in operations.

Panel Speaker I

Angie Lafferty, P. Eng.
General Manager, Engineering & Skilled Trades
TRQSS, Inc.
Tecumseh, Ontario, Canada

Panel Speaker II

Ghita El Anbri
Doctoral Candidate in Industrial Engineering
Polycircle X.0 and Laboratory of multiscale mechanics (LM2)
École Polytechnique de Montréal
Montréal, Canada

Ghita El Anbri is a doctoral candidate in Industrial Engineering at École Polytechnique de Montréal, specializing in additive manufacturing, logistics, and circularity in the aerospace industry. She was fast-tracked into the PhD program in recognition of her academic performance, having previously

completed a Bachelor of Business Administration with Honors in Operations Management and Logistics at HEC Montreal. Her research spans product life cycle management, circular economy, and multi-criteria decision-making, with applications in aerospace and sustainable manufacturing. She has lectured at Polytechnique and HEC Montréal, earning the award for Best Laboratory Lecturer from the Industrial Engineering Department (AÉCSP) in 2024, and is a member of the graduate study council of Polytechnique. Ghita has been widely recognized for her academic and research contributions. In 2025, she was part of the winning team in the international Young Engineers Challenge, organized by SAMPE Europe and presented at JEC World 25 in Paris. She won the Woman Leadership Scholarship by Axium Infrastructure in 2024 and was named one of the 100 student leaders from 50 countries by AUF in 2023, won 2nd place in the EV Competition at the IEOM 2023 Conference, and received the Emerging Women in Aerospace Scholarship from CRIAQ and the Howmet Aerospace Foundation Women's Excellence Scholarship. In 2022, she led a Polytechnique–HEC team to win 1st prize for poster presentation at the Space Resources Week in Luxembourg and was awarded the HEC Montréal Sustainable Development Research Fund. Her expertise bridges industrial engineering, sustainability, and the integration of advanced manufacturing.

Panel Speaker III

Negar Aghigh i
PhD Candidate
Department of Mechanical Engineering
Polytechnique Montréal
Montréal, Canada

Negar Aghigh is a PhD candidate in the Department of Mechanical Engineering at Polytechnique Montréal, under the supervision of Prof. Daniel Therriault. With a BSc in Mechanical Engineering from the University of Tehran, her direct doctoral studies specialize in multimaterial additive manufacturing of self-healing thermoplastic composites. Her project is in collaboration with the Multifunctional Composites Group of North Carolina State University, USA, led by Prof. Jason F. Patrick. With a background in manufacturing and automation, her research focuses on fused filament fabrication of smart materials, particularly sensors and heaters, with the goal of developing sustainable materials that offer improved durability and multifunctional performance. She serves as a teaching and laboratory assistant at Polytechnique Montreal and facilitates 3D printing workshops in schools and libraries across Quebec for the Centre de Recherche sur les Systèmes Polymères et Composites à Haute Performance (CREPEC). Negar has received multiple academic and professional recognitions. In 2025, her team from Canada won the SAMPE Europe Young Engineers Challenge, presenting at JEC World 25 in Paris for innovation in sustainable composite engineering. She was awarded the PBEEE Scholarship (2024–2025) by the Fonds de recherche du Québec for her doctoral research. At the University of Tehran, she ranked fourth among 125 students in the Mechanical Engineering program in 2023. In 2022, she earned fourth rank in the 27th National Student Scientific Olympiad in Mechanical Engineering. Earlier, she ranked in the top 0.2% nationwide in Iran's 2019 nationwide entrance exam for undergraduate studies.

Panel Speaker IV

Dr. Rupa Vasudevan
Chancellor
Bharatiya Engineering Science and Technology Innovation University (BEST IU)
Anantapur, Andhra Pradesh

Dr. Rupa Vasudevan is an Educationist, Sociopreneur, Founder and Co-Chairperson of BEST Group (Gatti Valley Educational Institutions). She is the Chancellor of Bharatiya Engineering Science and Technology Innovation University (BEST IU), a State Private University established in Anantapur, Andhra Pradesh.

Co-Founder and Director of Evergreen Naturals – EN, a company that focuses on cheaper availability of high-quality agricultural inputs to small and marginal farmers, monitoring growth and farming practices and helping in establishing forward and backward linkages in supply chain management. She is Appointed as one of the ten academicians in the General and Executive Council of Karnataka State Higher Education Council- KSHEC, apex body on education in the State. Regional Co-Chair for ASSOCHAM – Telangana, Andhra Pradesh and Karnataka State. Founder and Global President of World Forum for Education, an independent non-profit organization working globally to advance sustainable development, humanitarian response and facilitating public good through Knowledge sharing and Education. Trustee of Apna Desh Foundation, a Foundation that spearheads initiatives, finding meaningful ways to make a difference to our farmers while documenting best traditional practices from rural areas of the states of Karnataka, Kerala and Tamil Nadu and Andhra Pradesh. Honorary Trustee of Disha Bharat, a non-profit social organisation that works in the field of value education. Member, Governing Council of Indic Academy (INDICA) – a non-traditional University for traditional knowledge systems. And Member, Governing Council of India Foundation, New Delhi.

Global Supply Chain and Digital Transformation Panel

4:00 – 6:00 pm, October 16, 2025

Panel Chair

Dr. Guoqing Zhang
Professor
Department of Mechanical, Automotive and Materials Engineering
Faculty of Engineering
University of Windsor
Windsor, Canada

Guoqing Zhang, is a Professor in the Faculty of Engineering, University of Windsor, and also the director of Supply Chain and Logistics Optimization Research Centre. He received his Ph.D. degree in Management Sciences from City University of Hong Kong in 2000. His recent research interests include optimization in supply chain management, logistics, algorithms design and development, RFID, and facility/warehouse layout. He has published articles on those areas in journals such as Computational Optimization and Applications, IIE Transactions, European Journal of Operational Research, Computers and Operations Research, and Operations Research. He has served as a consultant to Auto, Energy, and Foods industries.

Panel Speaker I

Paul Liu
President
Aukfa Inc.
Toronto, Canada

Panel Speaker II

Dr. Saravanan Venkatachalam
Associate Professor
Industrial and Systems Engineering Department
Wayne State University
Detroit, Michigan

Dr. Saravanan Venkatachalam is an Associate Professor, Industrial & Systems Engineering, Wayne State University, Detroit, Michigan, USA. His research and teaching focus on stochastic programming, large-scale optimization, and deep learning for optimization, with applications in supply chain planning, healthcare systems, pricing and revenue management, energy systems, and mobility. Before academia, he spent nine years in industry with JDA Software and Hewlett-Packard, where he developed and implemented decision-support systems across consumer support, supply chain management, transportation, and pricing/revenue management domains. He holds a Ph.D. and M.S. in Industrial & Systems Engineering from Texas A&M University. His publications include work on decision-making under uncertainty, such as operations planning in supply chains, UAV routing, electric-vehicle charging-network planning, and air-traffic-flow management. His supply-chain scholarship advances risk-aware planning and replenishment through stochastic programming and large-scale optimization. His work develops two-stage formulations that capture demand and lead-time uncertainty, quantify downside risk (e.g., mean absolute semi-deviation), and propose scalable solution methods for coordinated replenishment and inventory balancing across multi-echelon networks. Recent projects extend these models with interactive decision support—including explainable analytics and natural-language interfaces—to help planners diagnose drivers of stockouts, evaluate mitigation strategies, and translate model insights into actionable plans.

Panel Speaker III

Sharfuddin Ahmed Khan, PhD, E.I.T, SMIISE
Associate Professor
Associate Program Chair, Industrial Systems Engineering
Faculty of Engineering and Applied Science
University of Regina
Regina, Saskatchewan, Canada

Sharfuddin Ahmed Khan is currently an Associate Professor and Associate Program Chair of Industrial Systems Engineering at the University of Regina, Saskatchewan, Canada. Prior to this role, he served as a Lecturer (September 2009 – August 2019) and later as an Assistant Professor (September 2019 – December 2021) at the University of Sharjah, United Arab Emirates. He then joined the University of Regina as an Assistant Professor (January 2022 – June 2025) before being promoted to his current position. Dr. Khan has contributed extensively to top-tier academic journals and Scopus-indexed conferences in areas such as supply chain management, sustainability, and engineering management. His research has been published in renowned journals, including Business Strategy and the Environment, Supply Chain Management: An International Journal, IEEE Transactions on Engineering Management, Production Planning and Control, International Journal of Production Research, and Operations Management Research, among others. He has also authored book chapters and published books with leading academic publishers such as Taylor & Francis and Emerald Publishing. Dr. Khan has successfully secured significant research funding and has supervised and co-supervised numerous graduate students at the master's and doctoral levels. His research continues to make a strong academic impact.

Panel Speaker IV

Panel Speaker V

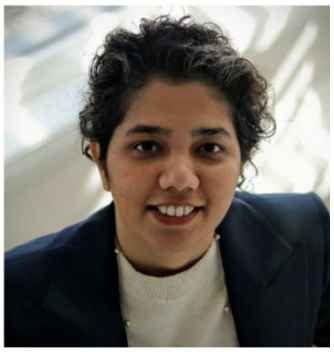
AI and Data Analytics Panel

2025 IEOM World Congress, University of Windsor, Canada

Moderator / Panel Chair

Andrea Yzeiri, MMA
Chief Data & Analytics Officer and Lead AI Engineer
Picsume
Windsor, Ontario, Canada

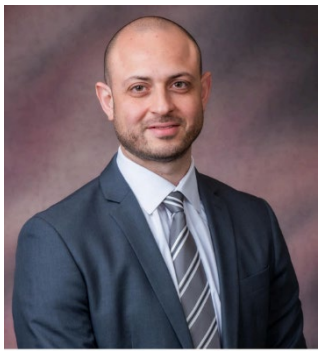
Panelists



Chandrika Abhang, MSc
Director of Product Management and R&D – Americas
Webasto Group
Detroit, United States

Gursimmer Banwait
R&D Engineer
Persico USA

Joe Youssouf, BSE
Data Scientist II
Oden Technologies
New York, United States



Ahmed Abou Gharam
Design for Reliability Director
Molex
Rochester, Michigan, USA

Panel on AI in Manufacturing

2025 IEOM World Congress, University of Windsor, Canada

4:00 – 6:00 pm, October 14, 2025

Moderator / Panel Chair

Dr. Neil Murray
Senior Technical Specialist
ZF Group
Farmington Hills, Michigan, USA

Panelists

Jd Marhevko
ASQ Fellow, Shainin Medalist, CSSBB, CMQOE, CQE, WiM HoF
Vice President Quality
Division U, Electronics & ADAS
ZF North America Inc.
Farmington Hills, Michigan

Alex Baker
Sr. Applications Engineer
Moldex3D Northern America, Inc.
Novi, Michigan

Panel Speaker
Title
Company
City

Panel Speaker
Title
Company
City

Panel Speaker
Title
Company
City

Panel Speaker
Title
Company
City

Panel on Vehicle Electrification and EV Charging

2025 IEOM World Congress, University of Windsor, Canada

Moderator / Panel Chair

Saif Siddique
Engineering Manager, Power Electronics
Stellantis
Auburn Hills, Michigan

Panelists

Dr. Sikder Kamruzzaman, PhD, SMIEEE
Professor of Networking and Cybersecurity
St. Clair College
Windsor, ON, Canada

Dr. Kazi Atiqur Rahman
Senior Software Architect – V2X Technologies, GNSS, Time Arch, PLC
General Motors
Michigan, USA

Panel Speaker
Title
Company
City

Panel Speaker
Title
Company
City

Panel Speaker
Title
Company
City

Panel Speaker
Title
Company
City

Future of Manufacturing – Innovation in Manufacturing Panel

2025 IEOM World Congress, University of Windsor, Canada

Moderator / Panel Chair

Dr. Steven Marshall
CFD Senior Expert
Valeo Thermal Systems
Auburn Hills, Michigan

Panelists

Dr. M. Joseph Ogundu, Ph.D., MBA
Chairman/CEO
Emerald Global Consulting Inc.
Farmington Hills, Michigan

Dr. Ahad Ali
Associate Professor
Director, Doctor of Engineering in Advanced Manufacturing
Director of BSIE and MSIE Programs
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International

Women in Industry and Academia (WIIA) Panel sponsored by Ford Motor Company

2025 IEOM World Congress, University of Windsor, Canada

Moderator / Panel Chair

Dr. Samira Keivanpour
Associate Professor
Department of Mathematics and Industrial Engineering
Polytechnique Montréal
Montréal, Canada

Panelists

Dr. Rupa Vasudevan
Chancellor
Bharatiya Engineering Science and Technology Innovation University (BEST IU)
Anantapur, Andhra Pradesh

Angie Lafferty, P. Eng.
General Manager, Engineering & Skilled Trades
TRQSS, Inc.
Tecumseh, Ontario, Canada

Ghita El Anbri
Doctoral Candidate in Industrial Engineering
Polycircle X.0 and Laboratory of multiscale mechanics (LM2)
École Polytechnique de Montréal
Montréal, Canada

Negar Aghigh i
PhD Candidate
Department of Mechanical Engineering
Polytechnique Montréal
Montréal, Canada

Global Supply Chain and Digital Transformation Panel

2025 IEOM World Congress, University of Windsor, Canada

Moderator / Panel Chair

Dr. Guoqing Zhang
Professor, Department of Mechanical, Automotive and Materials Engineering
Faculty of Engineering, University of Windsor, Canada

Panelists

Paul Liu
President
Aukfa Inc.
Toronto, Canada

Dr. Saravanan Venkatachalam
Associate Professor
Industrial and Systems Engineering Department
Wayne State University
Detroit, Michigan

Sharfuddin Ahmed Khan, PhD, E.I.T, SMIISE
Associate Professor
Associate Program Chair, Industrial Systems Engineering
Faculty of Engineering and Applied Science
University of Regina
Regina, Saskatchewan, Canada

Workshops

2:00 – 4:00 pm, October 14, 2025

Leading with Emotional Intelligence: A Seminar for Industrial Engineers

Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ
Chief Executive Officer & Founder
TP Global Business Consulting, LLC
Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Adept at reengineering business processes, change management and IT infrastructure with business visions to drive profitability, efficiency, and growth within the organization. Proficient at ensuring all processes comply with regulatory requirements and IT governance practices. Excellent communicator with strong influencing and problem-solving skills. Strong leadership skills and demonstrated ability to lead team members and external business contacts including stakeholders such as consultants, partners and vendors. Demonstrated track record of delivery of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000. He also volunteered in many activities to promote project management and participated of writing PMP exam questions workshop in Dallas, Texas in 2002. Dr. Prensa has helped hundreds of project management professionals to get prepared for the PMP exam. Dr. Prensa has taught project management for several universities in the country, including Virginia Technical University, Grand Canyon University, Colorado Technical University, University of Phoenix and currently teaching for Walden University. With more than 25 years of teaching experience in various formats, face-to-face and virtual. Dr. Prensa has developed techniques to connect with learners and students in the most efficient way. Dr. Prensa has extraordinary people skills, he always puts people first.

4:00 – 7:00 pm, October 14, 2025

AI and Machine Learning Workshop

STEPPING INTO AI & MACHINE LEARNING – Workshop
INSTRUCTOR-LED WORKSHOP WITH HANDS-ON TRAINING

Mohammad Islam
Associate Director
Optum – United Healthcare Inc.
New Jersey, United States of America

Mohammad Islam serves as an Associate Director at the UnitedHealth Group USA. He specializes in application and web-based software development, as well as machine learning and deep learning models and their practical applications. Mohammad holds a U.S. patent for a wireless GPS mapping device and has contributed articles to esteemed publications such as ASCE and CSCE. With a keen strategic mindset and a robust IT and Engineering background, Mohammad brings extensive experience in team management, technical leadership, and coaching. He excels in connecting individuals and teams with the right tools and products to optimize effectiveness and efficiency for their mission. With nearly 20 years of experience in IT Program and Portfolio management, spanning agile, SDLC, Kanban, and Scrumban methodologies, Mohammad believes that leveraging AI wisely can lead humanity to unprecedented heights. Before joining UnitedHealth in 2018, Mohammad held positions at Bank of America, Merrill Lynch, Walmart, and the United Nations.

Workshop Details

Get hands-on experience with the latest AI tools and technologies in our intensive workshop, designed and delivered by an industry experienced professional, Mohammad Islam. In this workshop pyour training will provide you with the tools to:

- Develop intelligent machine learning models with Python
- Data exploration and visualization
- Identify significances between supervised versus unsupervised ML
- Building supervised/unsupervised models
- Get an introduction to as well explore the world of Neural networks
- Build image recognition models

Upon course completion you will be able to:

- Understand the beneficial roles Machine Learning and Artificial Intelligence play in modern society
- Describe with clarity supervised and unsupervised machine learning
- Implement linear and polynomial regression models
- Implement (model using) K means clustering
- Describe deep learning versus machine learning
- Know the importance of model image recognition

2:00 – 4:00 pm, October 15, 2025

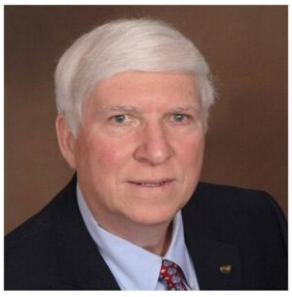
PPAP Workshop

Steven Sibrel
Senior Supplier Quality Manager
Harman International, Novi, MI
Past Chair – ASQ Greater Detroit

Steve Sibrel is a business process improvement trainer, coach and auditor with over 35 years of experience in the business and manufacturing world. He is currently working as Senior Supplier Quality Manager at Harman International, a manufacturer of audio and infotainment systems for consumer, professional, and automotive industries, with well-known brands such as JBL, Lexicon, Crown, Infinity, Mark Levinson, Becker and Harman-Kardon. Previously he held a number of engineering and management positions in diverse industries at Applied Materials (Semiconductor), NEC (Telecommunications) and Texas Instruments (Military). He has conducted over 200 supplier audits in North America, Europe, and Asia and is a Lead Auditor for ISO/TS16949, ISO9001, ISO13485, ISO17025, and 21CFR820. He has been the Chair for Professional Development for the ASQ Detroit section since 2008. He received the Distinguished Service Award in 2008 and the Leadership Award in 2013 from ASQ. Current ASQ Certifications held are Six Sigma Black Belt, Quality Engineer, Quality Inspector, Quality Auditor, and Manager of Quality/ Organizational Excellence. He is an adjunct facility member at Macomb Community College. Steve has a BSEE degree from Rose Hulman Institute of Technology and an MSEE degree from Southern Methodist University.

4:00 – 7:00 pm, October 15, 2025

TOYOTA KATA Workshop
The Secret Sauce for Toyota Production System



DAVE HARRY, a.k.a. "The Process Whisperer®"
Retired U.S. Naval Aviator
CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA
ASQ certified Six Sigma Black Belt and A PMI certified PMP®

Dave is a retired U.S. Naval aviator and currently CEO of Process Whisperer® Consultants LLC. He teaches LSS classes for TMG Inc of Newport News, VA. Prior to TMG, Dave was a Six Sigma and Productivity Consultant for the University of TN Center for Industrial Services. Dave is a "Kata Geek" and also an ASQ certified Six Sigma Black Belt. He is active in ASQ Sections and the ASQ Lean Enterprise Division Communications. In addition to ASQ, he also holds Black Belt Certification through Rolls-Royce and Northrop Grumman. He is a seasoned ASQ International Team Excellence Awards (ITEA) Judge. Dave is also currently on the Lean Division Board with the Institute of Industrial and Systems Engineers (IISE). Dave is on the Conference Advisory Committee for ASQs 2019 L&SS Conference in Phoenix as well as the Conference Committee for the IISE Engineering 2018 Lean Six Sigma Conference in Atlanta. A PMI certified PMP®, Dave also holds Lean Bronze Certification (LBC) through the SME/ASQ/AME/Shingo Institute Alliance and he holds three Master's Degrees in management related fields. In addition to ASQ, PMI and IISE, Dave is also a member of the Society of Manufacturing Engineers (SME), the Association of Manufacturing Excellence (AME) and the American Production and Inventory Control Society (APICS). Dave lives in Greeneville TN.

Workshop Details
Kata in the Classroom (KiC) workshops are based on Mike Rother's "Toyota Kata" methodology and that Scientific Thinking is a life skill. It's the basis for creativity and successfully pursuing seemingly unattainable goals. KiC demonstrates a teachable skill that anyone can learn — by combining a simple scientific striving pattern with practice routines called Kata – to help you learn meta-cognitive strategies. Many view Toyota Kata as the "secret sauce" of the Toyota Production System (TPS). Mike Rother wrote "Toyota Kata" to explain the secrets of TPS improvement sustaining methodology. How do we prepare for the future when we don't know what the future will bring? We can't predict how to get from A to B… we're stumped and overwhelmed, there are time constraints and economic pressure. Dave Harry will share the "secret sauce" with IEOM and Dubai Area University students through an intense hands-on "Kata in the Classroom" workshop. Be prepared to move fast!

2:00 – 4:00 pm, October 16, 2025

AI in Manufacturing Workshop

Dr. George Pappas
Associate Professor
Director, MSAI graduate program
Electrical + Computer Engineering
Lawrence Technological University
Southfield, Michigan, USA

Over 10 years of teaching, research, and work experience in embedded systems and high-performance computing. Dr. Pappas is currently the director of the Master of Science in Artificial Intelligence (MSAI) program. Research projects included being a Principal investigator (PI) for a DENSO grant in machine vision safety systems in vehicles titled "Intelligent Smart Real-Time Vision (ISRTV) as an Embedded System for Advanced Applications". Also currently being a co-PI working on a Minimal Viable Product (MVP) Contextualizer that incorporates AI and software integration for manufacturing integration for Stefanini. Artificial Intelligence (AI) in Autonomous vehicles, employs machine-learning techniques to collect, analyze, and transfer data for a safer driving experience. Also, investigate encryption and optimization algorithms and security of the transfer of electronic medical data using wireless cellular communication systems for evaluation, diagnosis, and treatment of patients in remote locations. Some additional research interests are Artificial Intelligence (AI) within radiology, specifically computerized tomography (CT) image reconstruction. Precise data analytics for pathology images. Virtual Reality (VR) in medical applications, Artificial Intelligence (AI) to aid diagnostics, Telemedicine, Medical and Health Informatics, Wireless implantable sensors, and biomedical Transducers.

4:00 – 6:00 pm, October 16, 2025

Innovation and Entrepreneurship Workshop

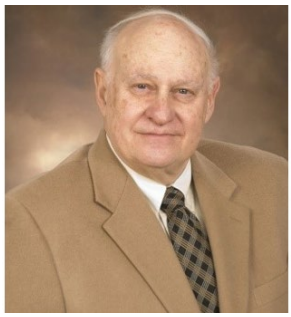
Workshop Facilitator: Professor Don Reimer, Lawrence Tech, MI, USA
Each team will develop an idea to solve an engineering problem that may have commercial potential. They will develop a business plan using the business model canvas. Teams will compete for prizes with best ideas and best commercial potentials. Students need to bring their laptops.

Innovation and Entrepreneurship Workshop – A hands-on interactive learning experience

This workshop has been designed to encourage participants in a hands-on interactive learning experience on the development of the entrepreneurial mindset

Topics:

Idea Generation
Opportunity Recognition
Ventura Creation
Value Creation
Understanding and working with the Business Model Canvas as a validation tool
Identifying "Customer Segments" and the "Customer Archetype"
Introduction to the Business Planning Process
Presentation and Recognition (Prizes)
Join us for an exciting and interactive learning experience on how to make your dream a reality.



Professor Donald M. Reimer
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA
Chief Operating Officer, IEOM Society

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs' Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs' Organization Faculty Advisory Council and is a member of the American Society of Engineering Education.

He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.

4:00 – 6:00 pm, October 16, 2025

Six Sigma Workshop

Speaker: Dr. Ahad Ali, Lawrence Technological University, Southfield, Michigan, USA

Six Sigma Certification Topics

Six Sigma Fundamentals

Define

Project Charter
Process Maps, SIPOC, Matrix Diagrams, Critical to Quality (CTQ) Metrics, and DPMO
Pareto Chart
SIPOC

Measure

Process analysis
Probability, Statistics and Distribution
Data collection and analysis
Gage Repeatability and Reproducibility (R&R)
Process capability
X-Bar Charts, Run Charts, Moving Average Charts, EWMA Charts, Attribute Charts, Takt Time, Standardization, Spaghetti Diagrams, and Setup Reductions

Analyze

Value Stream Map
Hypothesis Testing
Goodness of fit test
Regression Analysis
Cause & Effect Diagrams
Scatter Diagrams
ANOVA
Confidence Interval

Improve

Lean Tools to reduce NVA: 5S, Kaizen, Seven Zeros, TPS Principles, FMEA, and Simulation
Design of Experiments (DOE)
Statistical Process Control (SPC)
Analysis of Variance (ANOVA)
Solutions Validation

Control

Control Plan
SPC
Tracking
DFSS

Dr. Ahad Ali
Associate Professor
Director, Doctor of Engineering in Advanced Manufacturing
Director of Bachelor of Science in Industrial Engineering
Director, Master of Science in Industrial Engineering
Director of Smart Manufacturing and Lean Systems Research Group
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International

Dr. Ahad Ali is an associate professor, director of doctor of engineering in advanced manufacturing, director of industrial engineering programs (BSIE & MSIE) and director of graduate and undergraduate certificates in Lean Six Sigma at A. Leon Linton Department of Mechanical, Robotics, and Industrial Engineering of the Lawrence Technological University (LTU), Southfield, Michigan, USA. He established the Siemens Electro-Matic Industrial Engineering Lab at LTU. Dr. Ali was the primary author of the ABET self-study report of the BSIE Program at LTU in 2022. He earned a BS in Mechanical Engineering from Khulna University of Engineering and Technology (KUET), Bangladesh, a Master's in Systems and Engineering Management from Nanyang Technological University, Singapore, and a Ph.D. in Industrial Engineering from the University of Wisconsin-Milwaukee, USA. Dr. Ali was an Assistant Professor in Industrial Engineering at the University of Puerto Rico - Mayaguez, a Visiting Assistant Professor in Mechanical, Industrial, and Manufacturing Engineering at the University of Toledo, and a Lecturer in Mechanical Engineering at the Bangladesh Institute of Technology, Khulna. He received an Outstanding Professor Award from the Industrial Engineering Department, University of Puerto Rico -Mayaguez. Dr. Ali has been recognized with a Fulbright Award. He has published 75 journal papers and 150 conference papers. Dr Ali conducted research projects with Chrysler, Ford, DTE Energy, New Center Stamping, Whelan Co., Delphi Automotive System, GE Medical Systems, International Truck and Engine Corporation (ITEC), and Rockwell Automation. His research interests include manufacturing systems, quality, lean, six-sigma, simulation, artificial intelligence, supply chain, and optimization. He supervised 11 doctoral students in Doctor of Engineering in Manufacturing Systems (DEMS). He is a Founder and Chief Executive Officer (CEO) of IEOM Society International. Dr. Ali is a Co-Chair of the International Conference on Industrial Engineering and Operations Management. Dr. Ali organized IEOM conferences around the globe on six continents including Dhaka, Kuala Lumpur, Istanbul, Bali, Dubai, Orlando, Detroit, Rabat, Bristol, Bogota, Paris, Washington, DC, Lima, Johannesburg, Bangkok, Pilsen, Toronto, Costa Rica, Monterrey, Sao Paulo, Riyadh, Manila, Melbourne, New Delhi, Sydney, Augsburg, Tokyo, and Muscat. He is an associate editor of the IJIEOM. Dr. Ali is a member of IEOM, INFORMS, SME, and IEEE.

Conference Committee

Conference Chairs

Dr. Walid Abdul-Kader, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor, Canada
Dr. Ahad Ali, Associate Professor, Director of Industrial Engineering Program, Lawrence Technological University, USA and CEO of IEOM Society

Program Chairs

Dr. Abdur Rahim, University of New Brunswick, Fredericton, NB, Canada
Professor Don Reimer, Chief Operating Officer, IEOM Society
Dr. Nazrul Islam, IEOM Editor, Oshawa, Ontario, Canada

Organizing Committee

Dr. Guoqing Zhang, University of Windsor
Dr. Jacqueline Stagner, MAME Department, University of Windsor
Dr. Nabeel Mandahawi, Humber Polytechnic
Dr. Sharfuddin Ahmed Khan, University of Regina
Dr. Golam Kabir, University of Regina

Competition Chairs

Supply Chain and Logistics Competition Chair: Dr. Nabeel Mandahawi, Humber Polytechnic
High School STEM Competition Chair: Professor Don Reimer
Lean Six Sigma Competition Chair: Dr Niloofar Akbarian Saravi, University of British Columbia

Program Committee

Dr Pedram Bagheri, University of Manitoba, Canada
Dr Mohammadreza Makhan, University of Manitoba, Canada
Dr Valeria Jaqueline Oceguera Castillo, Cape Breton University, Canada
Dr Onur Kuzgunkaya, Concordia University, Montreal, Canada
Dr Nadia Bhuiyan, Concordia University, Canada
Dr Ting Yu, Concordia University, Canada
Dr Pooja Shah, Concordia University of Edmonton, Canada
Dr Alireza Ghasemi, Dalhousie University, Canada
Dr Uday Venkatadri, Dalhousie University, Canada
Dr Amir Atariani, Ecole de Technologie Superior, Canada
Dr Samuel Bassetto, Ecole Polytechnique, Canada
Dr Ali Gharbi, ETS Montreal, Canada
Dr Shashi Shahi, Lakehead University, Canada
Dr Saeid Abbasiparizi, Laval University, Canada
Dr Hossein Beheshti Fakher, Laval University, Canada
Dr Sanjith Gopalakrishnan, McGill University, Canada
Dr Mehmet Gumus, McGill University, Canada
Dr Onur Hisarciklilar, McGill University, Canada
Dr Alisa Douglas, McMaster University, Canada
Dr Mahmut PARLAR, McMaster University, Canada
Dr Manaf Zargoush, McMaster University, Canada
Dr Alaaeddin Elhemmali, Memorial University, Canada
Dr Aditi Patil, Mount Royal University, Canada
Dr Mouhab Meshreki, National Research Council Canada, Canada
Dr Tom Gaasenbeek, Nexas Networks Inc., Canada
Dr Peter ElKhoury, Ontario Tech University, Canada
Dr Dima Jawad, Ontario Tech University, Canada
Dr Marzieh Ghiyasinasab, Polytechnic Montreal, Canada
Dr Samira Keivanpour, Polytechnique Montreal, Canada
Tomas Agustin Bas, Polytechnique Montreal University, Canada
Elham Ghorbani, Polytechnique Montreal University, Canada
Peiman Pazhoheshfar, Polytechnique Montreal University, Canada
Dr Sikder Kamruzzaman, St. Clair College, Windsor, Canada
Dr Aliaa Alnaggar, Toronto Metropolitan University, Canada
Dr Mohamed Wahab, Mohamed Ismail, Ryerson University, Canada
Dr Nader Azad, Saint Mary's University, Canada
Dr Daniel Granot, University of British Columbia, Canada
Dr Austin Manhertz, Sheridan College, Canada
Dr Srinivas Ganapathyraju, Sheridan Institute of Technology, Canada
Dr Nicolas Ramirez, Simon Fraser University, Canada
Dr Mark Dolsen, TRQSS, Inc., Canada
Dr Linda Killop, TRQSS, Inc., Canada
Dr Iman JALILVAND, UBC, Canada
Dr Anupam Joshi, UMBC, Canada
Dr Francisco Arcelus, University of New Brunswick, Canada
Dr Daoud Ait Kadi, Universite Laval, Canada
Dr Samira Keivanpour, Universite Laval, Canada
Dr Abedeh Gholidoust, University Canada West, Canada
Dr Asudeh Shahidi, University Laval, Canada
Dr Saied Samiedaluie, University of Alberta, Canada
Dr Nikoo Sabzevar, University of Calgary, Canada
Dr Sanaz Nakhodchi, University of Guelph, Canada
Dr Srimantoorao Appadoo, University of Manitoba, Canada
Dr Yuvraj Gajpal, University of Manitoba, Canada
Dr Jacques A., Ferland University of Montreal, Canada
Dr Barbara Trenholm, University of New Brunswick, Canada
Dr Gopalan Srinivasan, University of New Brunswick, Canada
Dr Shantanu Dutta, University of Ottawa, Canada
Dr Ammar Abdallah, University of Quebec Montreal, Canada
Dr Moussa Bagayoko, University of Quebec, Canada
Dr William Grant, University of Quebec, Canada
Dr Amina Lamghari, University of Quebec, Canada
Dr Abdelhak El Aissa, University of Quebec at Rimouski (UQAR), Canada
Dr Jean-Pierre Kenna, University of Quebec, University of Quebec, Canada
Dr Annie Francie Kouedeu, University of Quebec, Canada
Dr Victor Songmene, University of Quebec, University of Quebec, Canada
Dr Sk Kafi Ahmed, University of Regina, Canada
Dr Eman Almehdawe, University of Regina, Canada
Dr Sara Rezaeinavaei, University of Regina, Canada
Dr Nicholas Lambrache, University of Technology, Canada
Dr Rogelio Emmanuel Jauregui Miramontes, University of Toronto, Canada
Dr Pranav Ketharam Pattabi, University of Toronto, Canada
Dr Yuri Lawryshyn, University of Toronto, Canada
Dr Ibrahim Mustafa University of Wateloo, Canada
Dr Farzaneh Daneshzand, University of Waterloo, Canada
Dr Abdulaziz Almutairi, University of Waterloo, Canada
Dr Ali Ahmadian, University of Waterloo, Canada
Dr Suaad Al-Zakwani, University of Waterloo, Canada
Dr Falah Alhameli, University of Waterloo, Canada
Dr Yassir Alhazmi, University of Waterloo, Canada
Dr Hesham Alhumade, University of Waterloo, Canada
Dr Mohammed Alkatheri, University of Waterloo, Canada
Dr M Fazle Baki, University of Windsor, Canada
Dr Sadaf Zahoor, University of Windsor, Canada
Dr Pierre Poirier, UQAM, Canada
Dr Loubna Benabbou, UQAR, Canada
Dr Safae Er-Rbib UQAR, Canada
Dr Sara Babaee, Wilfrid Laurier University, Canada
Dr Victor Shi, Wilfrid Laurier University, Canada
Dr Wenqing Zhang, Yorkville University, Canada

International Advisory Committee

Dr. Hiroyuki Goto, Hosei University, Japan
Dr. Khumbulani Mpofu, Vice Chancellor, Solusi University, Zimbabwe
Dr. Mohammad Khasawneh, Binghamton University, New York, USA
Dr. Neil Murray, ZF Group, Farmington Hills, Michigan, USA
Dr. Devinder Kumar Banwet, Vice Chancellor (Founding), University of Engineering & Management, Kolkata, India
Dr. Leonardo Frizziero, Alma Mater Studiorum University of Bologna, Italy
Dr. Matthew Pepper, University of Wollongong, New South Wales, Australia
Dr. Mohammed Ahmed, Eastern Michigan University, Ypsilanti, Michigan, USA
Dr. Mohammed Alkahtani, King Saud University, Riyadh, Saudi Arabia
Dr. Saso Krstovski, Associate Dean, Henry Ford College, MI, USA
Dr. Shekar Babu, AMRITA University, Mysuru, India
Dr. Grace Mukondeleli Kanakana-Katumba, TUT, Pretoria, South Africa
Dr. Jafri Mohd. Rohani, Universiti Teknologi Malaysia, Johor, Malaysia
Dr. Mario Chauca, Universidad Ricardo Palma, Santiago de Surco, Lima, Peru
Dr. Mario Fargnoli, Associate Professor, Universitas Mercatorum, Rome, Italy
Dr. Paul Ako, University of Nigeria, Nsukka, Nigeria
Dr. Rosemary Seva, De La Salle University, Manila, Philippines
Dr. M. Affan Badar, Indiana State University, Terre Haute, Indiana, USA
Dr. Adedeji Badiru, Air Force Institute of Technology, Wright-Patterson, USA
Mr. Aaron Rubel, Head of Maintenance Programs Development and Intellectual Property Focal Point, Airbus Mobile Engineering Center, Airbus Americas, Inc., Mobile, Alabama, USA
Dr. Shahram Taj, Florida Polytechnic University, USA
Dr. Luz María Valdez de la Rosa, University of Monterrey, México
Dr Ali Elkamel, Khalifa University, Abu Dhabi, UAE
Dr Wahyudi Sutopo, UNS, Surakarta, Indonesia
Dr T. Yuri M. Zagloel, Universitas Indonesia, Depok, Indonesia
Dr Abdelaziz Berrado, EMI, Rabat, Morocco
Dr Jiri Tupa, University of West Bohemia, Pilsen, Czech Republic
Dr Leslie Monplasir, Wayne State University, Detroit, USA
Steve Sibrel, Senior Quality Manager at Harman International, Novi, MI, USA
Dr Ho Hwi Chie, Bina Nusantara University (Binus), Indonesia
Dr Jose Arturo Garza-Reyes, University of Derby, UK
Dr Devdas Shetty, University of the District of Columbia, Washington, DC, USA
Dr Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia
Dr Abu Masud, Wichita State University, USA
Dr Charles Mbohwa, University of South Africa
Dr Umar Al-Turki, King Abdulaziz University, Saudi Arabia

Technical Committee

Dr Iman Jalilvand, University of British Columbia, Canada
Angie Lafferty, TRQSS, Inc., Tecumseh, Ontario, Canada

Dr Saman Hassanzadeh Amin, Toronto Metropolitan University, Canada
Dr Sharfuddin Ahmed Khan, University of Regina, SK, Canada
Dr Mohammed Alsharqawi, California State University, Sacramento, USA
Dr Srimantoorao. S. Appadoo, University of Manitoba, Winnipeg, Canada
Dr Yuvraj Gajpal, University of Manitoba (Fort Garry Campus), Canada
Dima Jawad, Ontario Tech University, Oshawa – Ontario, Canada
Dr Niloofar Akbarian Saravi, University of British Columbia, Canada
Dr Andrea Yzeiri, Picsume, Canada
Dr Wenqing Zhang, York Ville University, Canada
Dr Sarah Farahdel, Concordia University, Canada
Dr Eslam AbdAllah, Concordia University, Canada
Dr Harvi H. Millar, Saint Mary's University, Halifax, Nova Scotia
Dr Ammar Abdallah, Princess Sumaya University for Technology, Jordan
Dr Ali Ahmadian, University of Waterloo, Canada
Dr Davod Hosseini, Saint Mary's University, Halifax, NS, Canada
Dr Rajbir S Bhatti, Mount Royal University, Calgary, Alberta, Canada
Dr Muhamad Fariz Failaka, University of Waterloo, Canada
Jeremy Gabriel Uy, Department of Industrial and Systems Engineering, De La Salle University, Manila, Philippines
Md. Sourove Akther Momin, Senior Deputy Operative Director, Walton Hi-Tec. Ind. PLC., Dhaka, Bangladesh
Dr. Rajeswara Rao K V S, Associate Professor & HoD, Dept. of Industrial Engineering and Management, RV College of Engineering, Bengaluru, India
Dr. Ali Arishi, Department of Industrial Engineering, College of Engineering, King Khalid University, Abha, Saudi Arabia

Parallel Sessions

Wednesday, October 14, 2025

	Room 1101	Room 1102	Room 1100	Room 4	Room 5 – Zoom Virtual
7:00 am	**Registration**				
08:00 – 09:30	**PLENARY I**	**Sustainability, Green Systems and Energy**	**Supply Chain and Logistics**	**Business Management and Operations Management**	**Competitions**
09:30 – 10:00	Coffee Break				
10:00 – 10:10	Conference Chair Remarks - Dr. Walid Abdul-Kader, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor				
10:10 – 10:20	IEOM Society Remarks - Professor Don Reimer, Chief Operating Officer, IEOM Society International				
10:20 – 11:00	Host Welcome Address - Dr. Bill Van Heyst, Dean, Faculty of Engineering, University of Windsor				
11:00 – 11:40	Keynote II: Vladimir Franjo, P.Eng., Regional Director – Ontario Cross Regional Team, National Research Council Canada – Industrial Research Assistance Program (NRC-IRAP), Windsor, Canada				
11:40 – 12:20	Keynote III: Mr. Ryan Donally, President and CEO, Windsor-Essex Regional Chamber of Commerce, Windsor, Ontario, Canada				
12:20 – 1:00	Keynote IV: Dr Vedat Verter, Professor & Stephen J.R. Smith Chair of Management Analytics, Smith School of Business, Queen's University, Kingston, Ontario				
1:00 – 2:00	Lunch Break				
2:00 – 6:00 pm – **Poster Session and Poster Competition (Bring your printed posters)**					
2:00 – 3:30	**AI and Data Analytics Panel**	**AI in Manufacturing**	**PM - Emotional Intelligence Workshop**	**Advanced Manufacturing Technologies**	**Business Management & Operations Management**
3:30 – 4:00	Break				
4:00 – 5:30	**AI in Manufacturing Panel**	**Simulation, Optimization and Productivity Improvement**	**4:00 – 7:00 AI Workshop**	**Competitions**	**Simulation, Optimization and Productivity Improvement**
5:30 – 6:30	**Lab Visit**				

Thursday, October 15, 2025

	Room 1101	Room 1102	Room 1100	Room 4	Room 5 – Zoom Virtual
7:00 am	**Registration**				
8:00 – 9:45	**PLENARY II**	**Simulation, Optimization and Productivity**	**Automation, Robotics and Autonomous Sys**	**Sustainability, Green Systems and Energy**	**Advanced Manufacturing Technologies**
9:15 – 9:40	Coffee Break				
9:40 – 10:20	Keynote V: Benjamin Saltsman, Director, Advanced Manufacturing Innovation, Magna International Inc.				
10:20 – 11:00	Keynote VI: Dr. Anjali Awasthi, Professor, CIISE, Concordia University, Montreal, Canada and Past President of Canadian Operations Research Society (CORS)				
11:00 – 11:40	Keynote VII: Dr. Andrew Jardine, Emeritus Professor, Industrial Engineering, University of Toronto, Canada				
11:40 – 12:20	Keynote VIII: Dr. Bruce Minaker, MAME Department Head, University of Windsor, Ontario, Canada				
12:20 – 1:00	Keynote IX: Lisa Lortie, Vice President, Electrified Propulsion Planning, Stellantis, Auburn Hills, MI, USA				
1:00 – 2:00	Lunch Break				
2:00	Plant Tour				
2:00 – 3:30	**Advances in EV Technologies Panel**	**Supply Chain and Logistics**	**PPAP Workshop**	**Advanced Manufacturing Technologies**	**Supply Chain and Logistics**
	Break				
4:00 – 6:00	**Innovation in Manufacturing Panel**	**Supply Chain and Logistics**	**4:00 – 7:00 Toyota Kata Workshop**	**Sustainability, Green Systems and Energy**	**Engineering Management and Project Management**
7:00 – 10:00	**Conference Awards Dinner – Recognition of Awardees and Competition Winners – Room 1100**				

Friday, October 16, 2025

	Room 1101	Room 1102	Room 1100	Room 4	Room 5 – Zoom Virtual
7:00 am	**Registration**				
8:00 – 9:30	**PLENARY III**	**Supply Chain and Logistics**	**Sustainability, Green Systems and Energy**	**Engineering Education and Curriculum Improvement**	**AI in Manufacturing**
9:15 – 9:40	Coffee Break				
9:40 – 10:20	Lee R. Lambert, A Founder of the PMP, PMI, Powell, Ohio, United States				
10:20 – 11:00	Keynote X: Dr. Bruno Agard, Full Professor, Department of Mathematical and Industrial Engineering, Ecole Polytechnique, Montreal, Canada				
11:00 – 11:40	Keynote XI: Dr. Pengyi Shi, Associate Professor, Mitch Daniels School of Business, Purdue University, West Lafayette, Indiana, USA				
11:40 – 12:20	Keynote XII: Dr. Osman Alp, Professor, Haskayne School of Business, University of Calgary, Calgary, Alberta, Canada				
12:20 – 1:00	Keynote XIII: Dr. Leandro C. Coelho, Professor and Canada Research Chair in Integrated Logistics, Université Laval, Quebec, Canada				
1:00 – 2:00	Lunch Break				
2:00 – 3:30	**Women in Industry and Academia (WIIA) Panel sponsored by Ford Motor Company**	**Manufacturing, Assembly and Design**	**AI in Manufacturing Workshop**	**Engineering Management and Project Management**	**Lean Six Sigma and Operations Excellence**
3:30 - 400	**Break**				
4:00 – 5:30	**Global Supply Chain and Digital Transformation Panel**	**Quality, Reliability and Maintenance**	**Innovation and Entrepreneurship Workshop**	**Business Management and Operations Management**	**Sustainability, Green Systems and Energy**
4:00 – 7:00 Six Sigma Workshop and Yellow Belt Exam					

October 14, 2025 (Tuesday)

7:00 am – 6:00 pm – Registration – Lobby of Ed Lumley Centre for Engineering Innovation, Room 1100

October 14, 2025 (Tuesday) – Session: 8:00 – 9:30 am

8:00 – 9:30 am, TUESDAY, October 14 **Onsite Room 1101**

Session Chair:

8:00 – 8:20 am, October 14 (Tuesday)

Dr. Daw Alwerfalli
Professor and Director of Master of Engineering Management Program
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
College of Engineering
Lawrence Technological University
Southfield, Michigan, USA

8:20 – 8:40 am, October 14 (Tuesday)

Javed M Cheema
Co-Founder and Chief Data Scientist
MC2quare Ventures, LLC
Michigan, 48324 USA
Fellow, Japan Productivity Center
Fellow, American Society for Quality

8:40 – 9:00 am, October 14 (Tuesday)

9:00 – 9:20 am, October 14 (Tuesday)

8:00 – 9:30 am, TUESDAY, October 14 **Onsite Room 1102**

Session Chair:

Sustainability, Green Systems and Energy

ID 47 Bridging Perception and Technology: The Role of AI-Driven Knowledge Sharing and Psychological Empowerment in Advancing Carbon Capture Utilization (CCU) Acceptance
Divine Q. Agozie, Dept. of Operations and Management Information Systems., University of Ghana, Business School, Ghana
Esther E. Agozie, Green Education Unit, One Finger Foundation
Anthony Afful-Dadzie, Dept. of Operations and Management Information Systems., University of Ghana, Business School, Ghana

ID 83 Design and Deployment of a Hybrid Solar-Battery System for Efficient Energy Management
Muhammad Nadeem Akram and Walid Abdul-Kader, Industrial Engineering Program, MAME Department, University of Windsor, Windsor, Ontario, Canada

ID 120 Design Optimization and Experimental Validation of a Biogas-Powered Stove for Efficient Injera Baking in Rural Ethiopia
Gabr Goshu Syum, Mekelle university, Ethiopia

ID 121 Design Optimization and Experimental Validation of Flat Plate Solar Thermal Collectors Powered for Efficient Domestic Heating in Rural Ethiopia Oral Sustainability, Green Systems and Energy Gabr Goshu Syum Mekelle university Ethiopia

ID 26 Mapping Environmental Risks of Carbon Capture, Utilization, and Storage (CCUS): A Pre-LCA Approach
Maham Sohail, Shabana Kamal, Sharfuddin Ahmed Khan, and Sama Hosseini Androod, Faculty of Engineering and Applied Sciences, University of Regina, Regina, Canada
Saqib Khan, Faculty of Business Administration, University of Regina, Regina, Canada
Noha Razek, Faculty of Economics, University of Regina, Regina, Canada

ID 7 A Comparative Life Cycle and Economic Analysis of Drip and Surface Irrigation in Potato Farming: Addressing Water Scarcity and Sustainability in the Northern Plains of India
Rohit Kumar, Center for Sustainable Systems, School for Environment and Sustainability, University of Michigan, Ann Arbor, USA-48105
Arvind Bhardwaj and Gurraj Singh, 2Dr B R Ambedkar National Institute of Technology, Jalandhar, India
Anupam Kumar, Centre for Climate Research Singapore, National Environment Agency, Singapore
Gauri Jairath, ICAR-Indian Veterinary Research Institute, Regional Station, India

8:00 – 9:30 am, TUESDAY, October 14 **Onsite Room 1100**

Session Chair:

Supply Chain and Logistics

ID 31 Digital technologies in Cold Chain Pharmaceutical Supply Chain: A Systematic Literature Review
Raghavi Kemala, Masters Student, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Sharfuddin Ahmed Khan, Associate Professor, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina Regina, Canada

ID 40 Analyzing Global Supply Chains in the Times of Disruption: A Literature Review on Structural Dynamics and Challenges
Shahanaj Sultana, PhD Student, Industrial Systems Engineering, University of Regina, Regina, Saskatchewan, Canada
Sharfuddin Ahmed Khan, Associate Program Chair and Assistant Professor, University of Regina, Regina, Saskatchewan, Canada
Golam Kabir, Program Chair and Associate Professor, University of Regina, Regina, Saskatchewan, Canada

ID 114 Strengthening Pharmaceutical Supply Chains: The Integration of Information Technology into Transportation Management as a Security Measure
John Kwesi Buor, University of Ghana, Business School, Ghana

ID 141 Supply Chain Digitalization for Visibility and Sustainability: A Systematic Literature Review
Andrea Saldate Munguia, Industrial and Systems Engineering, Engineering and Sciences School, Tecnológico de Monterrey, Hermosillo, Mexico
Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Sharfuddin Ahmed Khan, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Maham Sohail, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada

ID 238 Global Supply Chains with Tariff and Market Uncertainty: Optimization and AI Approaches
Guoqing Zhang, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor Windsor, Canada
Qi Wang, College of Mathematics & Information Science, Hebei University, Baoding, China
Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor, Windsor, Canada

ID 239 Digital Transformation in SMEs in Heavy Freight Transport Sector
Claudia Milagros Alanoca Alvarado and Shiva Abdoli, School of Mechanical & Manufacturing Engineering, University of New South Wales, Sydney

8:00 – 9:30 am, TUESDAY, October 14 **Onsite Room 4**

Session Chair:

Business Management and Operations Management

ID 1 Food Insecurity In Indigenous Communities
Wenqing Zhang, Yorkville University, Canada

ID 12 Modeling Transformational Facilitators in Industry 4.0 Environment for Operators 4.0 – Indian perspective
PRS Sarma, Professor, Indian Institute of Management Visakhapatnam, India
Subrat Kumar Sahoo

ID 13 Exploring Dual Practice Dynamics in Healthcare Operations Management
Fatemeh Tehranikia, Ivey Business School, Canada

ID 16 Pharmaceutical Pricing and Access Policies: A Study on the Impact of Physicians' Imperfect Adherence to Prescribing Guidelines
Rezvan Shahabbasi, Prashant Chintapalli and Gregory S. Zaric, Ivey Business School, Management Science, University of Western Ontario London, Canada

ID 118 Economic Inventory Decisions for Agricultural Products
Mohammed Abdulaziz Darwish, Industrial & Management Systems Engineering Department, Kuwait University, Safat, Kuwait

ID 139 Dynamic Pricing in the Presence of Social Intervention and Consumer Learning
Yajie Ji, Glorious Sun School of Business and Management, Donghua University, Shanghai 200051, China
Department of Mechanical, Automotive & Materials Engineering, University of Windsor, Ontario N9B3P4, Canada
Jianheng Zhou, Glorious Sun School of Business and Management, Donghua University, Shanghai 200051, China
Guoqing Zhang, Department of Mechanical, Automotive & Materials Engineering, University of Windsor, Ontario N9B3P4, Canada

8:00 – 11:00 am, TUESDAY, October 14 **Virtual Room 5**

Session Chair:

Undergraduate Research Competition sponsored by Daikin Applied

ID 178 Enhancing Warehouse Efficiency in Emerging Economies through Lean Warehousing and Systematic Layout Planning: A Construction Case Study

Samantha Rocío Cueva-Zárate, Bachelor in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Perú
Franco Moreano-Calderón-de-la-Barca, Bachelor in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Perú
Juan Carlos Quiroz-Flores, Research Professor, Carrera de Ingeniería Industrial, Universidad de Lima, Perú

ID 183 A Lean-Based Production Model for Defect Reduction in Textile SMEs: A Case Study in Emerging Markets
Alejandra Milagros Herrera-Carhuanina, Bachelor in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Peru
Carmen Andrea Ortiz-Vaez, Bachelor in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Peru
Juan Carlos Quiroz-Flores, Research Professor, Carrera de Ingeniería Industrial, Universidad de Lima, Peru

Undergraduate Student Paper Competition sponsored by Siemens

ID 142 Modeling the Impact of Inventory Management on Sales Performance in Peruvian Nano-Stores: Evidence from Structural Equation Modeling
Andrea Vega-Eyzaguirre and Tatiana Sotomayor-Miranda, Bachelor in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Perú
Juan Carlos Quiroz-Flores, Ph.D., Research Professor, Carrera de Ingeniería Industrial, Universidad de Lima, Perú

Supply Chain and Logisitcs Competition sponsored by aThingz

ID 44 Improvement proposal for supply chain management in Peru's sausage industry using Lean Logistics and Kraljic Matrix with structural equations
Sebastian Curay and Jean Pierre Erquinio, Universidad de Lima, Lima, Perú
Edilberto Miguel Avalos Ortecho, Professor, Department of Industrial Engineering, Universidad de Lima, Lima, Perú

ID 228 Adoption of Delivery Applications in Bolivia: An Extended UTAUT2 Perspective
Boris Christian Herbas Torrico, Research Professor, Tecnológico de Monterrey, Guadalajara, Mexico
Jarin Canaza Fernandez, Senior Researcher, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia
Camila Silvente Villarroel, Research Assistant, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia
Maria Eugenia Lamas, Research Assistant, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia
Alejandra Pamela Suarez García, Research Assistant, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia

Graduate Student Paper Competition sponsored by Eaton Corporation

ID 10 Eng. AbdulRahman Graduate Student Paper Competition sponsored by Eaton Corporation AbdulRahman al Hasani Sultan Qaboos University Oman

ID 275 Data-Driven AI Models for Enhancing Mental Health and Operational Readiness
Hayder Zghair, Southern Arkansas University, United States

High School STEM Poster Competition

ID 35 Evaluating the Cardiovascular Benefits of Rollercoaster Rides Based on Autonomic Responses: A STEAMS-based Analysis
Candice Hsueh, High School Student, Morrison Academy Taipei, Taipei, Taiwan
Jia Sin Guo, High School Student, Morrison Academy Taipei, Taipei, Taiwan

ID 36 Evaluating the Statistical Reliability of Wearable Cardiovascular Health Monitoring Devices Using Gage R&R
Zan Chou, High School Student, Huaxing High School, Taipei, Taiwan
Ni-Hsi Yeh, High School Student, Taipei City Fanghe Experimental High School, Taiwan
Pin-Jen Lai, High School Student, Kang Chiao International School Linkou Campus, Taipei, Taiwan

Human Factors and Ergonomics Competition

ID 192 Investigation of the Suitability of Tricycles with the Riders in a Nigerian Tertiary Institution
Adebimpe O. A., Department of Industrial and Production Engineering, Faculty of Technology, University of Ibadan, Nigeria
Sea-Nduka R. C., Department of Industrial and Production Engineering, Faculty of Technology, University of Ibadan, Nigeria
Akinfenwa, A. S., Department of Mechanical Engineering, Georgia Southern University, USA

Lean Six Sigma Competition

ID 92 Application of Value Stream Mapping to Improve Productivity and Efficiency in a Furniture Manufacturing Company
Robert Mutyavavire, Phd, Department of Mechanical & Industrial Engineering, Faculty of Engineering & Built Environment, University of Johannesburg, South Africa
Alulutho Mlandu, Department of Mechanical & Industrial Engineering, Faculty of Engineering & Built Environment, University of Johannesburg, South Africa

AI-ML Competition

ID 87 IDS Using Deep Learning
Ayoub Elkadi, Master's Student, Department of Computer Science National School of Applied Sciences (ENSA), Ibn Tofail University, Kenitra, Morocco

09:30 – 10:00 Coffee Break

October 14, 2025 (Tuesday) – Session: 10:00 am – 1:00 pm

Keynotes – Room 1101

10:00 – 10:10 Conference Chair Remarks –

Dr. Walid Abdul-Kader, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor

10:10 – 10:20 IEOM Society Remarks –

Professor Don Reimer, Chief Operating Officer, IEOM Society International

10:20 – 11:00 Host Welcome Address –

Dr. Bill Van Heyst, Dean, Faculty of Engineering, University of Windsor

11:00 – 11:40 Keynote II:

Vladimir Franjo, P.Eng., Regional Director – Ontario Cross Regional Team, National Research Council Canada – Industrial Research Assistance Program (NRC-IRAP), Windsor, Canada

11:40 – 12:20 Keynote III:

Mr. Ryan Donally, President and CEO, Windsor-Essex Regional Chamber of Commerce, Windsor, Ontario, Canada

12:20 – 1:00 Keynote IV:

Dr Vedat Verter, Professor & Stephen J.R. Smith Chair of Management Analytics, Smith School of Business, Queen's University, Kingston, Ontario

1:00 – 2:00 – Lunch at Room 1100

2:00 – 6:00 pm
Poster Session and Poster Competition (Bring your printed posters)

ID 2 Weigh Bridge Operator research a management
Silifat Abidemi Lawal, Hitech Construction Company Nigeria Ltd., Nigeria

ID 18 Assessment of Barriers and Drivers for the Second-Life Electric Vehicle Battery Supply Chain
Ana Sofia Andrade-Arias, Graduate Student, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, SK, Canada
Dr. Golam Kabir, Professor and Program Chair, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, SK, Canada
Dr. Sharfuddin Khan, Associate Professor and Associate Program Chair, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, SK, Canada

ID 27 Improving Airport Baggage Handling System (BHS) Efficiency with Simulation-Based Design
Chenda Siv, Yutaka Matsubara and Hiroaki Takada, Graduate School of Informatics, Nagoya University, Nagoya, Aichi, Japan

ID 29 Navigating Supply Chain Tensions: The Role of AI and Paradox Thinking in Driving Sustainability
Owais Khan, Department of Management Studies, Aalto University, Espoo, Finland

ID 34 Green Claims on Trial: Can Procurement Tell Sustainability from Spin?
Owais Khan, Department of Management Studies, Aalto University, Espoo, Finland

Andreas Hinterhuber, Venice School of Management, Ca' Foscari University of Venice, Venice, Italy

ID 41 Low-Cost Separation of PET, PP, and PE Microplastics via Brine-Oil Density-Gradient Centrifugation
Nahum Kim and Seyoon Kim, Urban International High School, Toronto, ON, Canada
Seo Won Yi, Department of Computer Science, Department of Statistics, University of Toronto, Toronto, ON, Canada

ID 52 The Role of Artificial Intelligence in Advancing Sustainable Energy: A Review of Benefits and limitation
Abenezer Siyoum Ganoro, MSc in Green Industrial Engineering, School of Engineering (Facoltà di Ingegneria), Marche Polytechnic University Piazza Roma, 22, 60121 Ancona AN, Italy

ID 82 Study of Reliability Centered Maintenance and Failure Mode Effect Analyses (FMEA) In Textile Manufacturing Industries (Case at Spinning Section of Bahir Dar Textile Share Company)
Befekadu Zeleke, Expert, Amhara National Regional State Bureau of Industry and Investment, Msc. Industrial Management, Bahir Dar, Ethiopia

ID 116 Quantifying Factor Impacts on Exact Neural Network Verification with Mathematical Programming
Konstantinos Ziliaskopoulos and Alice E. Smith, Department of Industrial & Systems Engineering, Auburn University, Auburn, AL 36832, USA

ID 149 Investigation of TADF LEEC Based on Tert-Butylcarbazole Derivative as D-A-Ph-D' Emitter
Sohrab Nasiri, Raimundas Rukuiza and Juozas Padgurskas, Department of Mechanical, Energy and Biotechnology Engineering, Faculty of Engineering, Vytautas Magnus University, Kaunas, Lithuania

ID 151 Can Social Robots Improve Mental Health for Older Adults Living Alone? Evidence from South Korea
Soondool Chung, Professor, Department of Social Welfare, College of Social Sciences, Ewha Womans University, Seoul, Korea
Siryung Lee, Guest Researcher, Ewha Institute for Age Integration Research, Ewha Womans University, Seoul, Korea
Moonsun Song, Research Professor, Institute for Future Welfare Convergence Studies, Gangnam University, Kyunggi-Do, Korea

ID 152 Managing FMLA Within Manufacturing Organizations
Aaron Schultz, Manufacturing Production: North America, United States

ID 184 Use of Truncated Paired Data for Determining Radar Equation of a Dual-pol Radar
Chulsang Yoo, Professor, School of Civil, Environmental and Architectural Engineering, College of Engineering, Korea University, Seoul, Korea

ID 194 Design Thinking as an approach for product and service innovation: A study on its application in brazilian companies
Petroski, J. F. and Orrego, R. M. M., Department Production Engineering, Engineering School, Universidade Presbiteriana Mackenzie, São Paulo, Brazil

October 14, 2025 (Tuesday) – Session: 2:00 – 3:30 pm

2:00 – 3:30 pm, TUESDAY, October 14 **Onsite Room 1101**

AI and Data Analytics Panel

Panel Chair

Andrea Yzeiri, MMA
Chief Data & Analytics Officer and Lead AI Engineer
Picsume
Windsor, Ontario, Canada

Panel Speaker I

Chandrika Abhang, MSc (Eng)
Director of Product Management and R&D – Americas
Webasto Group
Detroit, United States

Panel Speaker II

Gursimmer Banwait
R&D Engineer
Persico USA
Michigan, United States

Panel Speaker III

Joe Youssouf, BSE
Lead Customer Data Scientist
Oden Technologies
New York, United States

Panel Speaker IV

Dr. Ahmed Abou Gharam
Design for Reliability Director
Molex

Rochester, Michigan, USA

2:00 – 3:30 pm, TUESDAY, October 14 **Onsite Room 1102**

Session Chair:

AI in Manufacturing

ID 19 Data-Driven Digital Twins in Manufacturing Systems: A Critical Investigation Review and Research Gaps and Future Direction
Tuyet Nguyen and Shiva Abdoli, School of Mechanical and Manufacturing Engineering, University of New South Wales, Sydney, Australia

ID 179 A Review of Bottleneck Management Strategies in Manufacturing Under Uncertainty for Sustainable Manufacturing
Mustafa Siddiqui, Shiva Abdoli and Mohammad Malaibari, Department of Mechanical and Manufacturing Engineering, UNSW Sydney, Sydney, Australia
Luke Djukic, Omni Tanker, Sydney, Australia

ID 277 Measuring Leanness in Manufacturing Organizations through Artificial Intelligence: A Systematic Review
Hostetler, L. G., Maware, C. and Parsley D. M., Fujio Cho Department of Engineering Technology, University of Kentucky, Lexington, Kentucky

ID 76 Comparative study between hydraulic servo valve and Van der Pol circuit
L. Miloudi, Electrical Systems Engineering Department, Faculty of Technology, Applied Automatic laboratory, University of Boumerdès, Algeria

ID 227 Developing a CAD-Based Digital Twin for Simulating Human-Robot Collaborative Disassembly of Complex Aerospace Components
Saeideh Kazembeigi, Polytechnique Montreal, Canada

2:00 – 3:30 pm, TUESDAY, October 14 **Onsite Room 1100**

Project Management Workshop – Emotional Intelligence

Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ
Chief Executive Officer & Founder
TP Global Business Consulting, LLC, Orlando, Florida, USA

2:00 – 3:30 pm, TUESDAY, October 14 **Onsite Room 4**

Session Chair:

Advanced Manufacturing Technologies

ID 115 Predicting and Eliminating Waste with Deep Learning in Lean Mental Health Systems
Michael Osei, Western Michigan University, United States

ID 128 Transforming the Manufacturing Workforce through AI and Digital Twins: Global Model Insights
Johnson Olaitan, University of Central Florida, United States

ID 153 Additive Manufacturing for Biomedical Arthroplasty
Aaron Schultz, Manufacturing Production: North America, United States

ID 195 Leveraging Lean Six Sigma Principles for Operational Excellence in Radiology Workflow Optimization
David Kadari and Andrew Zlotopolski, Department of Engineering, Texas A&M University College of Engineering, College Station, Texas, U.S.A

ID 248 From Detection to Decision: Integrating Analytics and Structural Equation Modeling for Urban Public Safety Response
Swarnamouli Majumdar and Anjali Awasthi, CIISE, Concordia University, Montreal, Canada

2:00 – 3:30 pm, TUESDAY, October 14 **Virtual Room 5**

Session Chair:

Business Management and Operations Management

ID 11 Clustering & strategic industrial financing development partnership projects & operations approach towards inclusive growth & sustainable industrialization
Thakaramahlaha Lehohla, Pali Lehohla and Moses Mwanjirah, Wits Mining Institute, South Africa

ID 14 Customer Management and Corporate Financial Performance: The Significance of Industry 4.0 Adoption
Hong Long Chen, Department of Finance and Innovation, Anderson School of Management, University of New Mexico, Albuquerque, NM, USA

ID 98 Improving Capacity Management: Case study to Improve Takt Time on Railway Manufacturing Line

Todani Sitholimela, Khathutshelo Mushavhanamadi and Eric Mikobi Bakama, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

ID 99 Operations Management of logistics and supply chain: issues and directions in manufacturing industry in south Africa
B.P. Shuma, K. Mushavhanamadi and E.M. Bakama, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 126 Operations Model based on Mixed Methodologies to Increase Customer Satisfaction in a Hotel Industry Company
María Alejandra Delgadillo-García, Facultad de Ingeniería, Universidad de Lima, Perú
Franco Tordoya-Valer, Facultad de Ingeniería, Universidad de Lima, Perú
Martin Fidel Collao-Díaz, Research Professor, Facultad de Ingeniería, Universidad de Lima, Perú

ID 127 Application of Poka-Yoke and the Kraljic Matrix to Reduce the Delivery Time Index in an SME in the Coffee Sector
Brigitte Madeley Jara-Gavidia, Facultad de Ingeniería, Universidad de Lima, Perú
Santiago Gonzalo Merizalde-Jara, Facultad de Ingeniería, Universidad de Lima, Perú
Paul Sanchez-Soto, Research Professor, Facultad de Ingeniería, Universidad de Lima, Perú

ID 136 Difficulties in Vendor/Supplier Selection: A Comprehensive Literature Review
Mihir Chandekar, Daksh Shah, Dhairya Thakkar, Rudra Goswami, Hariom Bodga, Harsh Khimsuriya and Harshil Vadodaria, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
Dr. M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University Gandhinagar, Gujarat, India

ID 231 Enhancing Safety Fuse Manufacturing Productivity: An Analytical Approach Using Factory Physics and Simulation Techniques in Bolivia
Boris Christian Herbas Torrico, Research Professor, Tecnológico de Monterrey, Guadalajara, Mexico
Fernanda Hur Alvarez, Research Assistant, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia

October 14, 2025 (Tuesday) – Session: 4:00 – 6:00 pm

4:00 – 6:30 pm, TUESDAY, October 14 **Onsite Room 1101**

AI in Manufacturing Panel

Panel Chair

Dr. Neil Murray
Engineering Manager
ZF
Farmington Hills, Michigan, USA

Panel Speaker I

Alex Baker
Sr. Applications Engineer
Moldex3D Northern America, Inc.
Novi, Michigan

Title: Transforming Plastics Simulation with Automation, Optimization, and AI

Panel Speaker II

Jd Marhevko
ASQ Fellow, Shainin Medalist, CSSBB, CMQOE, CQE, WiM HoF
Vice President Quality
Division U, Electronics & ADAS
ZF North America Inc.
Farmington Hills, Michigan

Title: Using AI & Digitization to Bust Silos in Problem Solving

Panel Speaker III

Panel Speaker IV

4:00 – 6:00 pm, TUESDAY, October 14 **Onsite Room 1102**

Session Chair:

Simulation, Optimization and Productivity Improvement

ID 21 Digital Twin Animation in Manufacturing: Identifying Gaps, Opportunities, and Implementing Solutions

Muhammad Amir Bin Mohamad Arif, Mohammed Malaibari and Shiva Abdoli, Senior lecturer, School of Mechanical and Manufacturing Engineering University of New South Wales, Sydney, Australia

ID 22 Application and Comparative Analysis of Weighted-Sum Scalarization and Compromise Programming for Submerged Arc Welding Flux Optimization
Adeyeye, A. D. and Agarin, E. P. T., Department of Industrial and Production Engineering, Faculty of Technology, University of Ibadan Ibadan, Nigeria

ID 50 Optimization of Purchasing Processes in Manufacturing: A Simulation-Based Study
Natasha Likhetho Letsie and Asser Letsatsi Tau, Department of Industrial Engineering, Operations Management and Mechanical Engineering Vaal University of Technology, Vanderbijlpark, South Africa
Sambil Charles Mukwakungu, Department of Quality and Operations Management, University of Johannesburg, PO Box 524, Auckland Park, 2006 Johannesburg, South Africa

ID 53 Analysis of drilling mud flow in the desander
K. Sahnoune, A. Benbrik and Z. Belimane, Laboratory of Petroleum Equipment's Reliability and Materials, Faculty of Hydrocarbons and Chemistry, Université M'Hamed Bougara, Boumerdès, Algeria

4:00 – 6:00 pm, TUESDAY, October 14 Onsite Room 1100

AI Workshop and Machine Learning Workshop

Mohammad Islam
Associate Director, Optum – United Healthcare Inc.

4:00 – 6:00 pm, TUESDAY, October 14 Onsite Room 4

Session Chair:

Doctoral Dissertation Competition sponsored by Airbus

ID 89 Bilevel Robust Optimization for Design and Pricing of Electric Vehicle Battery Reuse Network
Qi Wang, College of Mathematics & Information Science, Hebei University, Baoding, China
Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor, Windsor, Canada
Yankui Liu, Professor, College of Mathematics & Information Science, Hebei University, Baoding, China
Guoqing Zhang, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor Windsor, Canada

Master's Thesis Competition

ID 177 Optimization of Pricing and Service Location Decisions for Do-It-Yourself Products
Bofei Li and Guoqing Zhang, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor Windsor, Canada

ID 233 Intelligent IoT Based Supply Chain for Fresh Produce: A Hybrid Reinforcement Learning and Optimization Approach
Chirag Seth, University of Waterloo, Canada

Supply Chain and Logistics Competition sponsored by aThingz

ID 28 A Systematic Literature Review on Physical Internet Transforming current logistics to Sustainable Logistics
Abu Saleh Md Nakib Uddin, Student, MASc in Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina Regina, Saskatchewan, Canada
Sharfuddin Ahmed Khan, PhD, Associate Professor and Associate Program Chair, Faculty of Engineering and Applied Science, University of Regina Regina, Saskatchewan, Canada
Muhammad Shujaat Mubarik, PhD, Associate Professor, Logistics & Supply Chain Management, Edinburgh Business School, Heriot-Watt University, Edinburgh, UK
Shireen Al-hourani, PhD, Associate Professor, University Canada West, Vancouver, British Columbia

ID 150 Modeling Breakpoint Risk–Return Trade-offs in Supplier Development Programs
Fatemeh Keshavarz-Ghorbani and Guoqing Zhang, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor, Windsor, Canada

4:00 – 6:00 pm, TUESDAY, October 14 Virtual Room 5

Session Chair:

Simulation, Optimization and Productivity Improvement

ID 32 Assigning Turkish Super League Matches to Time Slots
Yasin Göçgün, Associate Professor, Department of Industrial Engineering, School of Engineering and Natural Sciences, Istanbul Medipol University Istanbul, Turkey

Hatice Sena Kulak, Hilal Sönmez, Zeki Gür, Esmanur Aytaş and Amjed Mohammed Ahmed Abdelhamid, Department of Industrial Engineering School of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey

ID 49 Enhancing Order Fulfillment in Electric Motor Gate Manufacturing: A South African Simulation Study
Andani Gudumi and Asser Letsatsi Tau, Department of Industrial Engineering, Operations Management and Mechanical Engineering Vaal University of Technology, Vanderbijlpark, South Africa
Sambil Charles Mukwakungu, Department of Quality and Operations Management, University of Johannesburg, PO Box 524, Auckland Park, Johannesburg, South Africa

ID 51 Simulation Modelling of a Vehicle Repair Center with Diagnostic, Inspection, and Washing Stages Using Arena Software
Mulengama Daniel Kazadi and Letsatsi Tau, Department of Industrial Engineering, Operations Management and Mechanical Engineering Vaal University of Technology, Vanderbijlpark, South Africa
Sambil Charles Mukwakungu, Department of Quality and Operations Management, University of Johannesburg, PO Box 524, Auckland Park, Johannesburg, South Africa

ID 181 A Lookahead Approach for Determining Matchday Schedule for Turkish Super League
Saara Gunes, Burcu Kahraman, Ahmet Oğuz Kaptı and Sonmezalp Eren, Faculty of Engineering and Natural Sciences, Department of Industrial Engineering, Istanbul Medipol University, Istanbul, Turkey
Yasin Gocgun, Associate Professor, Faculty of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey

ID 211 Hemp Stem Reinforced Concrete Composite Laminates
Som R. Soni, AdTech Systems Research Inc., 1342 North Fairfield Road, Beavercreek, Ohio 45432, USA
Craig Schluttenhofer, Agricultural Research and Development Program (ARDP), Central State University, 1400 Brush Row Road, Wilberforce, OH 45384, USA

ID 241 Design and Development of a Borehole Water Pump for Rural Areas
Brainy Motolla, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
Daramy Vandi. Von. Kallon, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
Motsi Ephrey Matlakala, Department of Mechanical Engineering Science, University of Johannesburg, South Africa

ID 253 Reduction of Storage Costs in a Livestock Feed Trading Company through the Application of 5S and SLP within a Kaizen Environment
Fabrizio David Burgos More, Industrial Engineering Program, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Peru
Álvaro Alberto Pérez Monzón, Industrial Engineering Program, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Peru

October 15, 2025 (Tuesday)

7:00 am – 6:00 pm – Registration – Lobby of Ed Lumley Centre for Engineering Innovation, Room 1100

October 15, 2025 (Wednesday) – Session: 8:00 – 9:30 am

8:00 – 9:30 am, WEDNESDAY, October 15 **Onsite Room 1101**

Session Chair:

Plenary II

8:00 – 8:20 am, October 15 (Wednesday)

Xuan (Jen) Zhao, Ph.D.
Professor, Operations and Decision Sciences
Lazaridis School of Business and Economics
Wilfrid Laurier University
Waterloo, Ontario, Canada
Adjunct Professor, Management Sciences
Faculty of Engineering
University of Waterloo
Associate Editor, Journal of Operational Research Society

Presentation Title: Managing Quality on Two-Sided Platforms

8:20 – 8:40 am, October 15 (Wednesday)

8:40 – 9:00 am, October 15 (Wednesday)

Suresh Done
CIO
SNA Technologies
Commerce, Michigan

Title: Frameworks to build Responsible AI

9:00 – 9:20 am, October 15 (Wednesday)

Dr. Harun Rashid
Adjunct Professor
Wayne State University
Detroit, Michigan, USA

ID 237 Peeragogy and Heutagogical Framework for Teaching AI Ethics
Harun Rashid, Ph.D., Adjunct Professor, Wayne State University, USA

8:00 – 9:30 am, WEDNESDAY, October 15 **Onsite Room 1102**

Session Chair:

Simulation, Optimization and Productivity Improvement

ID 188 Simulation and Optimization Approaches for Productivity Improvement in Soft-Drink Industry Wastewater Management
Hifza Waseem, Department of Food Engineering, NED University of Engineering & Technology, Karachi, Pakistan

ID 212 Comparative Analysis of Weighted-Sum Scalarization and Compromise Programming for SAW Flux Optimization
Adeyeye, A. D. and Agarin, E. P. T., Department of Industrial and Production Engineering, Faculty of Technology, University of Ibadan, Ibadan, Nigeria

ID 245 Scheduling on Shared Resources: A System Dynamics Approach
Shellyanne Wilson, Senior Lecturer, Department of Management Studies, Faculty of Social Sciences, The University of the West Indies
St. Augustine, Trinidad, W.I.

ID 250 Application of SLP Layout Optimization with Lean Tools for Enhanced Performance in Metal Manufacturing Facility
Rana Almardaie, Lawrence Technological University, United States

8:00 – 9:30 am, WEDNESDAY, October 15 **Onsite Room 1100**

Session Chair:

Automation, Robotics and Autonomous Systems

ID 137 Challenges in Executing an Automobile Project
Meet Khandelwal, Priyansh Koshti, Krunal Dhamankar, Siddhraj Luhar, Ansh Mehta and M.B. Kiran, Department of Mechanical Engineering
School of Technology, Pandit Deendayal Energy University Gandhinagar, Gujarat, India

ID 138 Challenges in Executing an Automobile Project
Meet Khandelwal, Priyansh Koshti, Krunal Dhamankar, Siddhraj Luhar, Ansh Mehta and M.B. Kiran, Department of Mechanical Engineering
School of Technology, Pandit Deendayal Energy University Gandhinagar, Gujarat, India

ID 276 AI Based Wind Flow Analysis for a Multi-floor Structure
Abu Huraira Atta Ullah, Industrial and Manufacturing Engineering, University of Engineering and Technology, Lahore, Pakistan
Muhammad Ashhub Ali, Software Engineering Department, National University of Science and Technology, Islamabad, Pakistan
Dr. Anjum Ali, Former Professor of EE, FAST-NU, Lahore, Pakistan
Former Professor, ECE, KICS, UET, Lahore, Pakistan
Former Associate Professor of EE, Mercer University, MACON, GA, USA
Former Associate Professor of CSE, LUMS, Lahore, Pakistan

8:00 – 9:30 am, WEDNESDAY, October 15 **Onsite Room 4**

Session Chair:

Sustainability, Green Systems and Energy

ID 5 Post-Disaster Engineering and the Role of Smart Technologies in the Caribbean Context
Samuel Olivier Augustin, Resident Engineer resident engineer, Société d'Étude de Supervision et de Construction d'Immeubles et d'Ouvrages Publics (SESCIOP), Jeremie, Grand-Anse, Jeremie, Haiti

ID 217 Design of Flash - Binary Cycle Plants for an operating Geothermal Flash Power Plant
M.J.B. Kabeyi, Department of Industrial Engineering Department, Durban University of Technology, Durban South Africa
O.A. Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

ID 247 Circularity in Advanced Transportation Materials: A Comparative Study of Recycling Challenges and LCA Gaps for PEEK and Bio-composites
Amarouche Yasmine, Gedeon Sarah, El-Anbri Ghita and Keivanpour Samira, Department of Industrial Engineering, Faculty of Engineering
University of Polytechnique Montreal, Montreal, Canada

ID 148 An Evaluation of Performance of Renewable Energy in Ghana Involving Operation and Maintenance Project Management Protocol
Yaw Frimpong Sarpong, Graduate Student of Project Engineering, Ghana Communication Technology University, Accra, Ghana
Gabriel Gidisu Blanton, Department of Telecommunications Engineering, Ghana Communication Technology University, Accra, Ghana
Ruhiya Abubakar, Dr. Department of Electrical and Electronics Engineering, Faculty of Engineering, Ghana Communication Technology University Accra, Ghana
Ebenezer Malcalm, Prof, Department of Management Studies, Ghana Communication Technology University, Accra, Ghana

ID 218 Institutional Sustainability of Renewable Energy Resources
Moses Jeremiah Barasa Kabeyi, Department of Industrial Engineering Department, Durban University of Technology, Durban, South Africa
Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

8:00 – 9:30 am, WEDNESDAY, October 15 **Virtual Room 5**

Session Chair:

Advanced Manufacturing Technologies

ID 119 Leveraging AI-Driven Technologies to Combat Unemployment in South Africa: Building a Resilient Future
Save Akilimalissiga, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa
Nita Sukdeo, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 130 Predictive Modeling of Patient Waiting Times in the Emergency Room Using Supervised Learning
Kawsar, M. M. Aflatun and Hasan, Md Shamim, Department of Industrial and Production Engineering, Military Institute of Science & Technology Dhaka, Bangladesh
Ghoshal, Turjo, Department of Mechanical Engineering, University of Delaware, Delaware, USA

ID 180 A Framework for Waste Minimization in Laboratory-Scale Additive Manufacturing
Ghita El Anbri and Samira Keivanpour, Department of Mathematical and Industrial Engineering, Polytechnique Montreal, Montreal, QC, Canada
Negar Aghigh, Daniel Therriault and Sampada Bodkhe, Department of Mechanical Engineering, Polytechnique Montreal, Montreal, QC, Canada

ID 193 Predicting Ship Emissions Using a Data-Driven Approach: Case Study on the Saint Lawrence River
Abdelhak El Aissi, Department of Mathematics, Computer Science, and Engineering Université du Québec à Rimouski (UQAR), Rimouski, Quebec, Canada
Ismail Bourzak, Data Scientist, Xpert Solutions Technologiques Le´vis, Quebec, Canada
Loubna Benabbou, Professor, Department of Management Sciences Université du Québec à Rimouski Le´vis, Quebec, Canada
Abdelaziz Berrado, Professor Mohammadia School of Engineering Mohammed V University at Rabat, Rabat, Morocco

ID 221 Artificial Intelligence (Ai): Viable Solution for Marine Eco-System
Dr. Hossain KA, Vice Chancellor of Bangladesh Maritime University (BMU), Dhaka, Bangladesh

ID 222 Smart Technology: Ultimate Option to Develop Global Maritime Industry In 21st Century
Dr. Hossain KA, Vice Chancellor of Bangladesh Maritime University (BMU), Dhaka, Bangladesh

ID 232 Optimizing Aviation Inventory: AI-Driven Forecasting for Enhanced Efficiency in Bolivian Airlines
Boris Christian Herbas Torrico, Research Professor, Tecnológico de Monterrey, Guadalajara, Mexico
Daniela Xiomara Campos Ayala, Research Assistant, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia
Jarin Canaza Fernandez, Senior Researcher, Bolivian Industrial Research and Development Group, Cochabamba, Bolivia

ID 242 Modelling Water Pumping System in the Govan Mbeki Local Municipality
P. Sekwakwa, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
A. Cholo, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
T. Ramaila, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
M. E. Matlakala, Department of Mechanical Engineering Science, University of Johannesburg, South Africa
D. V. V. Kallon, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

9:15 – 9:40 Coffee Break

October 15, 2025 (Wednesday) – Session: 10:00 am – 1:00 pm

Keynotes – Room 1101

9:40 – 10:20 Keynote V:

Benjamin Saltsman, Director, Advanced Manufacturing Innovation, Magna International Inc.

10:20 – 11:00 Keynote VI:

Dr. Anjali Awasthi, Professor, CIISE, Concordia University, Montreal, Canada and Past President of Canadian Operations Research Society (CORS)

11:00 – 11:40 Keynote VII:

Dr. Andrew Jardine, Emeritus Professor, Industrial Engineering, University of Toronto, Canada

11:40 – 12:20 Keynote VIII:

Dr. Bruce Minaker, MAME Department Head, University of Windsor, Ontario, Canada

12:20 – 1:00 Keynote IX:

Lisa Lortie, Vice President, Electrified Propulsion Planning, Stellantis, Auburn Hills, MI, USA

1:00 – 2:00 – Lunch at Room 1100

Plant Tour at 2:00 pm (tentative, under approval)

October 15, 2025 (Wednesday) – Session: 2:00 – 3:30 pm

2:00 – 3:30 pm, WEDNESDAY, October 15 **Onsite Room 1101**

Advances in Vehicle Electrification and EV Technologies Panel

Panel Chair

Saif Siddique
Engineering Manager
Power Electronics/ Power Converter
Stellantis
Auburn Hills, Michigan

Panel Speaker I

Dr. Sikder Kamruzzaman, PhD, SMIEEE
Professor of Networking and Cybersecurity
St. Clair College
Windsor, ON, Canada

Title: Towards Safe and Connected Mobility: Securing EV Ecosystems in the Era of 5G and IoT

Panel Speaker II

Dr. Kazi Atiqur Rahman
Senior Software Architect – V2X Technologies, , GNSS, Time Arch, PLC
General Motors
Michigan, USA

Panel Speaker III

Panel Speaker IV

Panel Speaker V

2:00 – 3:30 pm, WEDNESDAY, October 15 **Onsite Room 1102**

Session Chair:

Supply Chain and Logistics

ID 84 Designing Adaptive Reverse Logistics Systems for EV Batteries Using Multi-Agent Simulation and Geospatial Intelligence
Abdul Aziz Ibrahim, Muhammad Nadeem Akram and Walid Abdul-Kader, Industrial Engineering Program, MAME Department, University of Windsor, Windsor, Ontario, Canada

ID 85 Assessment of Barriers and Drivers for the Second-Life Electric Vehicle Battery Supply Chain
Ana Sofia Andrade-Arias, Golam Kabir and Sharfuddin Khan, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada

ID 95 Deployment of digital technologies for enhancing supply chain resilience amid trade tensions
Nnamdi Ogbuke, University of Hertfordshire, United Kingdom

ID 173 An Integrated MCDM Framework for Sustainable Dental Supplier Selection and Procurement
Fatemeh Hamta Safarian, Dentist, Doctor of Dental Surgery, Faculty of Dentistry, Azad University of Tehran, Tehran, Iran
Meysam Shaverdi, PhD in Supply Chain and Logistics, RMIT University, Lecturer, Texila College, Melbourne, Victoria 3006, Australia

ID 174 Comprehensive Review of Improvement in Inventory Management Methods through Digitalization: Traditional Practices and Emerging Trends
Sara Rezaeinavaei, MSc Student, Department of Industrial Systems Engineering, Faculty of Engineering & Applied Science, University of Regina Regina, Canada
Sharfuddin Khan, Asscoiate Professor, Department of Industrial Systems Engineering, Faculty of Engineering & Applied Science, University of Regina, Regina, Canada

ID 30 Digitalization in Biomedical Supply Chain: A Systematic Literature Review and Future Directions
Maryam Shahab, Student, Department of Industrial Systems Engineering, Faculty of Engineering, University of Regina, Regina, Canada
Sharfuddin Ahmed Khan, Associate Professor, Department of Industrial Systems Engineering, University of Regina, Regina, Canada

2:00 – 3:30 pm, WEDNESDAY, October 15 **Onsite Room 1100**

PPAP Workshop

Steve Sibrel
Senior Supplier Quality Manager, Harman and ASQ Detroit Past Chair

2:00 – 3:30 pm, WEDNESDAY, October 15 **Onsite Room 4**

Session Chair:

Advanced Manufacturing Technologies

ID 4 Forecasting Saudi Arabia's CO2 emissions using artificial neural networks, autoregressive integrated moving average models, and Holt-Winters exponential smoothing
Ali AlArjani, Industrial Engineering Department, College of Engineering, Prince Sattam Bin Abdulaziz University, AlKharj, KSA

ID 48 Challenges in Adopting Robotic and Automation Systems in Nigeria's Manufacturing Industry
Jachike Chineme Anugwo, Mechanical Engineer, Production Unit, Olam OK Foods Limited, Plot 1, Block C Fatai Atere Way, Matori Mushin Lagos, Lagos, Nigeria
Chioma Ada Omattah, Data Engineer, Bluechip Technologies Ltd., Victoria Island, Lagos, Nigeria
Onyekwelu C. Anugwo, IT Business Analyst, Anmath Consulting Ltd., Iju Road, Lagos, Nigeria
Iruka Chijindu Anugwo, Senior Lecturer, Department of Construction Management & Quantity Surveying, Faculty of Engineering & The Built Environment, Durban University of Technology (DUT), Durban, South Africa

ID 81 Anti-False Alarm AI Industrial Fire Hazard System
Said Kafumbe, Faculty of Engineering Technology and Science, Higher Colleges of Technology, UAE

ID 86 EcoRutas: Smart logistics in waste Management
Andres Santos, Escuela Colombiana de Ingeniería, Colombia

ID 97 Tracing AI and Supply Chain Emphasis Across the Global IEOM Landscape, A Meta-Analysis Under Global Uncertainty
Edgar Avalos-Gauna, Rice Center for Engineering and Leadership, George R. Brown School of Engineering and Computing, Rice University Houston, Texas, USA

2:00 – 3:30 pm, WEDNESDAY, October 15 **Virtual Room 5**

Session Chair:

Supply Chain and Logistics

ID 88 Systematic Literature Review Blockchain and Cybersecurity in the Industrial System
EL Abbadi Laila, Laboratory of Advanced Systems Engineering, The National School of Applied Sciences, University Ibn Tofail, Ibn Tofail, Morocco
Berhil Tarik, The National School of Applied Sciences, University Ibn Tofail, Ibn Tofail, Morocco

ID 93 Warehouse Layout Optimization Using Systematic Layout Planning
Robert Mutyavavire, Doctorate, PhD., Department of Mechanical and Industrial Engineering, Faculty of Engineering and the Built Environment University of Johannesburg, Johannesburg, South Africa
Gasa Luyanda, Department of Mechanical and Industrial Engineering (Industrial Engineering Student), Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

ID 117 Organizational Social Performance: Role of Resilience & Data Analytics Capabilities
Muhammad Sohaib Zafar and Muhammad Asher Ud Din Qazi, Department of Mechanical Engineering, University of Engineering and Technology
Amjad Hussain, Professor, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan
Amjad Mehmood, Director Operations, Technology and Management, Integratix, Lahore, Pakistan
Mohammed Khurrum Bhutta, Professor, Department of Management, Ohio University, Ohio, United States of America
Raza Rafique, Assistant Professor, Department of Management, Kean University, Union, New Jersey, United States of American

ID 145 Supply Chain Resilience in Global Uncertainty: Framework, Trends, and the Impact of Digitalization
Denys Yashchuk, Undergraduate Student, Major in Economics, Faculty of Economics, Taras Shevchenko National University of Kyiv
Kyiv, Ukraine
Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Sharfuddin Ahmed Khan, Associate Professor, Industrial Systems Engineering Department, Faculty of Engineering and Applied Sciences, University of Regina, Saskatchewan, Canada
Suzan Oğuz, Politecnico di Milano, School of Management, Via Lambruschini 4/B, 20156 Milan, Italy
Çağ University, Vocational School, Department of Foreign Trade, 33800 Mersin, Türkiye

ID 175 Identification of Key Selection Criteria for Transportation Service Provider in Vietnam with Content Validity Ratio
Nguyen Thi Mai Chi, School of Manufacturing Systems and Mechanical Engineering, Sirindhorn International Institute of Technology, Thammasat University, Thailand
Jirachai Buddhakulsomsiri, School of Manufacturing Systems and Mechanical Engineering, Sirindhorn International Institute of Technology, Thammasat University, Thailand
Pham Duc Tai, School of Manufacturing Systems and Mechanical Engineering, Sirindhorn International Institute of Technology, Thammasat University, Thailand

ID 187 Improvement to reduce delivery times using 5S, kanban and standardized work in a plastic company. A Peruvian empirical review
Fernanda Mendoza, Mary Rosales and Alberto Flores-Perez, Facultad de Ingeniería, Universidad de Lima, Lima, Peru

ID 243 Predicting and Mitigating Last-Mile Delivery Failures through Human Machine Systems Analysis at United Parcel Service
Brittany Sondria Cottrell, Ph.D. Candidate, The Grainger College of Engineering, Department of Industrial and Enterprise Systems Engineering
University of Illinois Urbana Champaign, Urbana Champaign, IL 61801, USA

October 15, 2025 (Wednesday) – Session: 4:00 – 5:30 pm

4:00 – 5:30 pm, WEDNESDAY, October 15 **Onsite Room 1101**

Future of Manufacturing – Innovation in Manufacturing Panel

Panel Chair

Dr. Steven Marshall
CFD Senior Expert
Valeo Thermal Systems
Auburn Hills, Michigan

Panel Speaker I

Panel Speaker II
Dr. M. Joseph Ogundu, Ph.D., MBA
Chairman/CEO
Emerald Global Consulting Inc.
Farmington Hills, Michigan

Panel Speaker III

Dr. Ahad Ali, LTU

Panel Speaker IV

4:00 – 5:30 pm, WEDNESDAY, October 15 **Onsite Room 1102**

Session Chair:

Supply Chain and Logistics

ID 45 Performance indicators and digital value stream mapping implementation: an Industry 4.0 application in SME
Angassu Girma Mullisa, College of Science Engineering and Technology, Faculty of Engineering, University of South Africa, Addis Ababa, Ethiopia
Walid Abdul-Kader, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor Windsor, Canada

ID 124 Resource Allocation optimization in government projects as a tool for continuous improvement
Hugo Herrera, Full time Professor, Industrial Engineering program director, Industrial and systems engineering school, Faculty of Engineering Universidad Nacional de Colombia, Colombia
Javier Ojeda, Contract Professor, Project manager, Industrial and systems engineering school, Faculty of Engineering, Universidad Nacional de Colombia, Colombia

ID 190 Micro-Motion Lean using MODAPTS: Enhancing Productivity in a Tier-1 Automotive Seatbelt Assembly Plant
Usama Tariq, Samuel Adu and Dr. Sardar Asif Ayyub Khan, Department of Mechanical, Automotive and Materials Engineering, University of Windsor, Windsor, Ontario N9B 3P4, Canada

ID 154 Facilities Layout Planning in a TPS Environment using Deterministic and Digital Twin Tools
Gwendolyn Holowecky, Mark Dolsen and Angie Lafferty, TRQSS Inc., Tecumseh, Ontario, Canada

ID 78 Improvements to Teaching Methodology for Adaptive Skiing Using Ergonomics and Engineering
Elizabeth O'Neill, Assistant Professor, Department of Engineering Technology, State University of New York Buffalo State University, USA
Keith McDade, Assistant Lecturer, Department of Engineering Technology, State University of New York Buffalo State University, USA
William Hanners, Senior Instructor for Jet Blue, Embry Riddle Aeronautical University, Daytona Beach, Florida

4:00 – 5:30 pm, WEDNESDAY, October 15 **Onsite Room 1100**

Toyota Kata Workshop
The Secret Sauce for Toyota Production System

Speaker:

DAVE HARRY, a.k.a. "The Process Whisperer®"
Retired U.S. Naval Aviator
CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA
ASQ certified Six Sigma Black Belt and A PMI certified PMP®

4:00 – 5:30 pm, WEDNESDAY, October 15 **Onsite Room 4**

Session Chair:

Sustainability, Green Systems and Energy

ID 224 The Role of Smart Grids in Smart Mobility
Moses Jeremiah Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban South Africa
Oludolapo Akanni. Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

ID 225 Microbial Energy Harvesting: The Design, Operations and Future Direction
Dr. Moses Jeremiah Barasa Kabeyi, Department of Industrial Engineering Department, Durban University of Technology, Durban South Africa
Prof. OA Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

ID 235 Restoring Power to the People; A Feasibility Study of Community Solar for Flint Residents A WIP Paper
Donaldson, E. S., Dawson, H, Edinger, M, Turner, S. W. and Burzo M., Faculty of College of Innovation and Technology, University of Michigan-Flint United States of America
Carralero, P., Faculty of School of Foundational Studies, Kettering University, USA
Shariff, N., Executive Director, Flint Rising, USA

ID 244 Towards Sustainable Human-Robot Collaborative Assembly: A framework Integrating Time, Safety, and Energy Efficiency
Mahboobe Kheirabadi, Samira Keivanpour, Yuvin Chinniah and Jean-Marc Frayret, Department of Mathematics and Industrial Engineering Polytechnique Montreal, Montreal, Canada

ID 123 Efficiency Improvement of Bagasse-Fired Steam Power Plants via Flue Gas Drying: Metehara Sugar Factory Case in Ethiopia
Gabr Goshu Syum, Mekelle university, Ethiopia

4:00 – 5:30 pm, WEDNESDAY, October 15 **Virtual Room 5**

Session Chair:

Engineering Management and Project Management

ID 91 Evaluating the Impact of the Heijunka Production Levelling Technique to Reduce WIP
Dr. Robert Pokote Mutyavavire and Khanyisile Sineke, The University of Johannesburg, South Africa

ID 125 Safety in Academic Space: The Impact of Exit Facilities
Edoghogho Ogbeifun, Civil Engineering Department, Faculty of Engineering, University of Jos, Nigeria
Terna M. Ironem, Directorate of Physical Facilities, University of Jos, Nigeria
Halima G. Auta, Directorate of Physical Facilities, University of Jos, Nigeria
Jan Harm C. Pretorius, Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 131 Challenges of Project Planning in the Steel Industry
Yash Dave, Utkarsh Rajput, Devarshi Jani, Om Sarkhedi, Hardik Bhatia and Piyush, Department of Mechanical Engineering School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat
Dr. M.B. Kiran, Associate Professor, Department of Mechanical Engineering School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat

ID 132 Software Tools used in Project Planning
Nandini Chaudhary, Aarav Kansara, Devang Ardeshna, Arya Shah, Bhargav Nimbark, Ayush Patel, Kirtan Bhavsar and M.B. Kiran, Department of Mechanical Engineering School of Technology, Pandit Deendayal Energy University Gandhinagar, Gujarat, India

ID 133 Challenges in Intiating a Two-Wheeler Project
Adarsh Sharma, Hitanshu Patel, Krish Patel, Akshat Vyas and Uday Mitra, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

ID 134 Strategic Project Management in the Automotive Industry: An Integrated Analysis of Innovation, Risk Management, and Organizational Transformation
Dhvanil Mistry, Krutik Mistry and Dhruvraj Panchal, Students, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
Dr. M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, india

ID 191 Smart Supply Chains for Resilient Transport Infrastructure in Libya: Circular Economy Solutions to Mitigate Cost Overruns
Abdulhamid Mohamed, École de technologie supérieure, Université du Québec, Canada
Yvan Beauregard, Professor, Département de génie mécanique, École de technologie supérieure, Université du Québec, Canada

ID 215 Evaluating the Role of Communication in Project Management Success
Harshil Vadodaria, Jainam Rathod, Utsav Suthar, Hitarth Vyas and Yash Basida, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
Dr. Abhishek Kumar, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University Gandhinagar, Gujarat, India

ID 229 Application of Lean Manufacturing to Increase Productivity in an MSE in the Metalworking Sector
Luis Gonzalo Cuadra Caballero, Facultad de Ingeniería, Universidad de Lima, Lima, Lima, Perú
Wilson David Calderón Gonzales, Research professor, Facultad de Ingeniería, Universidad de Lima, Lima, Lima, Perú

ID Bad Leadership: Vital Behaviors, Characteristics and Nomenclature
Wallace A. Burns, Samantha Bietsch, Kandis Boyd-Wyatt and Larry D. Parker Jr., American Public University, United States

October 16, 2025 (Thursday)

7:00 am – 6:00 pm – Registration – Lobby of Ed Lumley Centre for Engineering Innovation, Room 1100

October 16, 2025 (Thursday) – Session: 8:00 – 9:30 am

8:00 – 9:30 am, THURSDAY, October 16 **Onsite Room 1101**

Plenary III

Session Chair:

8:00 – 8:20 am, October 16 (Thursday)

E. Shirl Donaldson, Ph.D. PMP

Faculty Member
College of Innovation and Technology
University of Michigan Flint

8:20 – 8:40 am, October 16 (Thursday)

Dr. Sardar Asif Khan, P. Eng., PMP
Continuous Improvement Lead, Parts & Services, North America
Stellantis
Auburn Hills, MI, USA

8:40 – 9:00 am, October 16 (Thursday)

9:00 – 9:20 am, October 16 (Thursday)

8:00 – 9:30 am, THURSDAY, October 16 **Onsite Room 1102**

Session Chair:

Supply Chain and Logistics

ID 42 Integrating Artificial Intelligence and Blockchain for Resilient Pharmaceutical Supply Chains: A Systematic Literature Review
Abu Saleh Md Nakib Uddin, Student, MASc in Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina Regina, Saskatchewan, Canada
Dua Weraikat, PhD., Assistant Professor & MEIE Department Coordinator, Mechanical & Industrial Engineering Department, RIT Dubai, Dubai Silicon Oasis, Dubai United Arab Emirates
Shireen Al-hourani, PhD., Associate Professor, University Canada West, Vancouver, British Columbia
Sharfuddin Ahmed Khan, PhD., Associate Professor and Associate Program Chair, Faculty of Engineering and Applied Science, University of Regina, Regina, Saskatchewan, Canada

ID 46 Configurations for Sustainable Artificial Intelligence and Drone Integration in Healthcare Logistics: A Fuzzy-set Analysis of Efficiency, Environmental Impact, Regulatory Alignment and Stakeholder Acceptance
Abeeku Sam Edu, University of Ghana Business School, Ghana

ID 54 Strengthening Pharmaceutical Supply Chains: The Integration of Information Technology into Transportation Management as a Security Measure Supply Chain and Logistics JOHN KWESI BUOR University of Ghana Business School Ghana

ID 77 Markov Decision Process-Based Optimization for Cellphone Reverse Logistics Using Reinforcement Learning
Abdul Aziz Ibrahim and Walid Abdul-Kader, Industrial Engineering Program, MAME Department, University of Windsor, ON, N9B 3P4, Canada

8:00 – 9:30 am, THURSDAY, October 16 **Onsite Room 1100**

Session Chair:

Sustainability, Green Systems and Energy

ID 9 Institutionalization of sustainability practices and programs in Indian Higher Education Institutions – Developing a Priority Model
PRS Sarma, Professor, Indian Institute of Management Visakhapatnam, India
Subrat Kumar Sahoo

ID 17 Digital Technologies in E-Waste Management: A Systematic Literature Review
Ghazal Jafari Baghmaleki, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Saskatchewan S4S 0A2, Canada
Sharfuddin Ahmed Khan, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Saskatchewan S4S 0A2, Canada

ID 24 An Integrated LCA and IEOM Framework for Coal Power Plants in Emerging Economies
Atif Nasim Khan, MASc Student, Department of Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina Regina, Canada
Sharfuddin Ahmed Khan, Assistant Professor, Department of Industrial Systems Engineering, Faculty of Engineering and Applied Science University of Regina, Regina, Canada

ID 25 Analyzing the Macroeconomic and Supply Chain Impacts of CO_2 Capture Technology: An Input-Output Framework for the Construction Phase
Sama Hosseini Androod, Shabana Kamal, Sharfuddin Ahmed Khan and Maham Sohail, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Saqib Khan, Faculty of Business Administration, University of Regina, Regina, Canada
Noha Razek, Faculty of Economics, University of Regina, Regina, Canada

ID 37 Sustainable Supply Chain Practices and Organisational Performance: The Mediating Role of Firm Competition
Joshua Ofori-Amanfo, Viscount Ameke Egbenya and Florence Newman, Senior Lecturer, Mphil Graduate, PhD Student, Department of Operations and Management Information Systems, University of Ghana Business School, P.O. Box LG 78, Legon, Accra, Ghana

Prosper Biaka Konlan, PhD Researcher, Cranfield University, College Road, Bedfordshire United Kingdom

ID 122 Design Optimization and Experimental Validation of Flexible Direct Solar- PV panel-Powered Mitad for efficient Injera Baking in Rural Ethiopia
Gabr Goshu Syum, Mekelle University, Ethiopia

8:00 – 9:30 am, THURSDAY, October 16 **Onsite Room 4**

Session Chair:

Engineering Education and Curriculum Improvement

ID 147 Teaching Concept of a Modeling Approach for the Analysis of Embodiment Function Relations for Product Engineering
Peter Michael Tröster, Julian Schön and Albert Albers, Doctoral Researcher, Teacher and Professor, IPEK – Institute for Product Engineering Karlsruhe Institute of Technology (KIT), Karlsruhe, BW, Germany

ID 213 Assessing the Use of Generative AI in Academic Teaching and Research
Tarequl Islam, School of Engineering, Bowling Green State University, Bowling Green, OH, USA
Md Adilur Rahim, Louisiana State University Agricultural Center, Baton Rouge, LA, United States
Md Imran Hasan Tusar, School of Engineering, Bowling Green State University, Bowling Green, OH, USA

ID 252 Breaking Barriers: Confronting Systemic Inequities and Instructional Gaps in K–12 STEM Education for African American Students
Vincent Johns Jr., College of Education, University of Louisiana at Monroe, Monroe, Louisiana
E Shirl Donaldson, College of Innovation and Technology, University of Michigan-Flint, Flint, MI, United States

8:00 – 9:30 am, THURSDAY, October 16 **Virtual Room 5**

Session Chair:

AI in Manufacturing

ID 96 Assessing the Impact of Generative AI for an AI-Ready Manufacturing Paradigm
Abigail O. Jefia, Solutions Engineer, Industrial IoT, Cisco Systems, Lagos, Nigeria

ID 185 AI-Enabled End-to-End Visibility in Global Supply Chains: Predictive Approaches for Risk Mitigation in Manufacturing
Raghunandan Gurumurthy, Crossover Solutions USA Inc., United States

ID 186 Remote Process Monitoring Systems: Driving Predictive Maintenance and Operational Excellence in Manufacturing
Raghunandan Gurumurthy, Crossover Solutions USA Inc., United States

ID 251 Intelligent Monitoring and Management Approach for Industrial Distillation Processes ‘
Wanlong Jiang, Jiaying Chen, Yurong Qian and Jinhai Sa, School of Software, Xinjiang University, No. 666 Shengli Road, Urumqi, Xinjiang, China

9:15 – 9:40 Coffee Break

October 16, 2025 (Thursday) – Session: 10:00 am – 1:00 pm

Keynotes – Room 1101

9:40 – 10:20 Keynote X:

Lee R. Lambert, A Founder of the PMP, PMI, Powell, Ohio, United States

10:20 – 11:00 Keynote XI:

Dr. Bruno Agard, Full Professor, Department of Mathematical and Industrial Engineering, Ecole Polytechnique, Montreal, Canada

11:00 – 11:40 Keynote XII:

Dr. Pengyi Shi, Associate Professor, Mitch Daniels School of Business, Purdue University, West Lafayette, Indiana, USA

11:40 – 12:20 Keynote XIII:

Dr. Osman Alp, Professor, Haskayne School of Business, University of Calgary, Calgary, Alberta, Canada

12:20 – 1:00 Keynote XIV:

Dr. Leandro C. Coelho, Professor and Canada Research Chair in Integrated Logistics, Université Laval, Quebec, Canada

1:00 – 2:00 – Lunch at Room 1100

October 16, 2025 (Thursday) – Session: 2:00 – 3:30 pm

2:00 – 3:30 pm, THURSDAY, October 16 **Onsite Room 1101**

Women in Industry and Academia (WIIA) Panel sponsored by Ford Motor Company

Panel Chair

Dr. Samira Keivanpour
Associate Professor
Department of Mathematics and Industrial Engineering
Polytechnique Montréal
Montréal, Canada

Panel Speaker I

Angie Lafferty, P. Eng.
General Manager, Engineering & Skilled Trades
TRQSS, Inc.
Tecumseh, Ontario, Canada

Panel Speaker II

Ghita El Anbri
Doctoral Candidate in Industrial Engineering
Polycircle X.0 and Laboratory of multiscale mechanics (LM2)
École Polytechnique de Montréal
Montréal, Canada

Panel Speaker III

Negar Aghigh i
PhD Candidate
Department of Mechanical Engineering
Polytechnique Montréal
Montréal, Canada

Panel Speaker IV

Dr. Rupa Vasudevan
Chancellor
Bharatiya Engineering Science and Technology Innovation University (BEST IU)
Anantapur, Andhra Pradesh

2:00 – 3:30 pm, THURSDAY, October 16 **Onsite Room 1102**

Session Chair:

Manufacturing, Assembly and Design

ID 3 Integrated Advancement of Pitting and Milling Machineries for Sustainable Date Fruit Processing and Value-Addition
Nwankwojike Bethrand Nduka, Department of Mechanical Engineering, Michael Okpara University of Agriculture, Umudike, Nigeria
Nwogu Chukwunonso Nweze, Department of Mechatronics Engineering, Michael Okpara University of Agriculture, Umudike, Nigeria

ID 20 Industry 5.0 and its Implementation in Manufacturing SMEs
Shubhankar Pandey and Shiva Abdoli, School of Mechanical & Manufacturing Engineering, University of New South Wales, Sydney

ID 94 Integrated Advancement of Pitting and Milling Machineries for Sustainable Date Fruit Processing and Value-Addition
Nwankwojike Bethrand Nduka, Department of Mechanical Engineering, Michael Okpara University of Agriculture, Umudike, Nigeria
Nwogu Chukwunonso Nweze, Department of Mechatronics Engineering, Michael Okpara University of Agriculture, Umudike, Nigeria

ID 146 Mass Adoption of AI in Automotive Manufacturing: Pathways to a Bright Future
Corrie Floyd II, Department of Industrial Engineering, Master's Student in Systems Engineering, Wayne State University, Detroit, Michigan

2:00 – 3:30 pm, THURSDAY, October 16 Onsite Room 1100

AI in Manufacturing Workshop

Dr. George Pappas
Associate Professor
Director, MSAI graduate program
Electrical + Computer Engineering
Lawrence Technological University
Southfield, Michigan, USA

2:00 – 3:30 pm, THURSDAY, October 16 Onsite Room 4

Session Chair:

Engineering Management and Project Management

ID 33 From Innovation to Impact: Embedding Sustainable Development Goals in University Research Projects - A Risk Management Perspective
Gertraud Wolf, Department of Civil Engineering and Environmental Science, University of the Bundeswehr Munich, Neubiberg, Germany
Christina Angela Gross and Christian Trapp, Department for Powertrain Technologies, University of the Bundeswehr Munich, Neubiberg, Germany
Christian Zimmermann and Philip Sander, Department of Civil Engineering and Environmental Science, University of the Bundeswehr Munich, Neubiberg, Germany

ID 182 Determining Matchday Schedule for Turkish Super League under a Rest Mismatch Minimization Objective
Aylin Yılmaz, Duygu Sahin, Selin Gök, Fatma Simay Cizmeci and Simge Gokturk, Students, Department of Industrial Engineering, Faculty of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey
Yasin Göçgün, Professor, Department of Industrial Engineering, Faculty of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey

ID 216 Sustainability Measurement of Renewable Energy Resources
Moses Jeremiah Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban South Africa
Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

ID 8 Upscaling Business Performance of Female Entrepreneurs Through Responsive Business Environment
Ibrahim Danjuma, Professor, Department of Business Administration, Modibbo Adama University, Yola, Nigeria
Raheem Shefiu, School of Business and Entrepreneurship, American Univetsity of Nigeria, Yola, Nigeria

ID 129 Agro-Industrial Clusters and Cassava Value Chain Transformation-2nd Final Update
Johnson Olaitan, Orlando, Florida, USA

2:00 – 3:30 pm, THURSDAY, October 16 Virtual Room 5

Session Chair:

Lean Six Sigma and Operations Excellence

ID 110 An empirical case of a Peruvian company: Improvement of the process by applying Lean Construction, Lean Six Sigma and TQM to increase productivity
Marife Durand Pun, Ken Ganaja Kobashigawa and Alberto Flores-Perez, Facultad de Ingeniería, Universidad de Lima, Lima, Perú

ID 219 Lean Six Sigma for the Optimization of the Operations Area of a Microenterprise in the Alcoholic Beverage Sector
María Alexandra Sarmiento Díaz, Faculty of Industrial Engineering, University of Lima, Lima, Perú
Valeria Velazco Collantes, Faculty of Industrial Engineering, University of Lima, Lima, Perú

ID 234 DMAIC-Integrated ISO 14001, LCA and Green Six Sigma for Hazardous Waste in Peruvian University Laboratories
Mechelle Prado-Perez, Bachelor in Industrial Engineering, Carrera de Ingeniería Industrial, Universidad de Lima, Perú
Juan Carlos Quiroz-Flores, Ph.D., Research Professor, Carrera de Ingeniería Industrial, Universidad de Lima, Perú

ID 236 Implementation of TPM and SMED to increase Productivity in a Brick Manufacturing Company
Ambrosio, J. G. and Curi, A. J. Department of Industrial and Production Engineering, Faculty of Technology, University of Lima, Lima, Perú
Noriega, M. T.,

ID 274 Impact of Organizational Structure on Lean Implementation in Small and Medium Manufacturing Enterprises: A Mixed-Methods Approach
John Ruprecht, Kuldeep Agarwal, and Pawan Bhandari, Department of Automotive and Manufacturing Engineering, Minnesota State University, Mankato, MN 56001, USA
Tammy Bohlke, Center for Workforce Professional Education, Minnesota State University, Mankato, MN 56001, USA
Praneel Acharya, Department of Aviation, Minnesota State University, Mankato, MN, United States

October 16, 2025 (Thursday) – Session: 4:00 – 5:30 pm

4:00 – 5:30 pm, THURSDAY, October 16 **Onsite Room 1101**

Global Supply Chain and Digital Transformation Panel

Panel Chair

Dr. Guoqing Zhang
Professor
Department of Mechanical, Automotive and Materials Engineering
Faculty of Engineering
University of Windsor
Windsor, Canada

Panel Speaker I

Paul Liu
President
Aukfa Inc.
Toronto, Canada

Panel Speaker II

Dr. Saravanan Venkatachalam
Associate Professor
Industrial and Systems Engineering Department
Wayne State University
Detroit, Michigan

Panel Speaker III

Sharfuddin Ahmed Khan, PhD, E.I.T, SMIISE
Associate Professor
Associate Program Chair, Industrial Systems Engineering
Faculty of Engineering and Applied Science
University of Regina
Regina, Saskatchewan, Canada

Panel Speaker IV

Panel Speaker V

4:00 – 5:30 pm, THURSDAY, October 16 **Onsite Room 1102**

Session Chair:

Quality, Reliability and Maintenance

ID 143 Ensuring Reliability in Practice: An Exploratory Interview Study on Challenges, Trends, and Optimization Potentials
Peter Michael Tröster, Jakob Willerscheid and Albert Albers, Doctoral Researchers and Professor, IPEK – Institute for Product Engineering
Karlsruhe Institute of Technology (KIT), Karlsruhe, BW, Germany
Erich Rittmaier and Martin Dazer, Doctoral Researcher and Head of Reliability & Head of Drive Technology Department, Institute of Machine Components, University of Stuttgart, Stuttgart, BW, Germany

ID 220 Second Life EV Battery Degradation: A Techno-Economic Analysis
Muhammad Nadeem Akram and Walid Abdul-Kader, Industrial Engineering Program, MAME Department, University of Windsor, Windsor, Ontario, Canada

ID 226 PPE 2.0 – A Tool towards Equipment Reliability and Maintenance Engineering Success
S. Salim and N. Mehram, Water Resource Recovery Facility, Great Lakes Water Authority, Detroit, MI 48209, USA

ID 246 Investigating the Water Reticulation problem in the Nkangala District Municipality of Mpumalanga Province
D. R Hills, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
T.M Phumo, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
M.R Mafafo, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa
M. E. Matlakala, Department of Mechanical Engineering Science, University of Johannesburg, South Africa
D. V. V. Kallon, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

4:00 – 5:30 pm, THURSDAY, October 16 **Onsite Room 1100**

Innovation and Entrepreneurship Workshop

Professor Donald M. Reimer
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA
Chief Operating Officer, IEOM Society

4:00 – 5:30 pm, THURSDAY, October 16 **Onsite Room 4**

Session Chair:

Business Management and Operations Management

ID 140 The Role of Smart Contracts in Fresh Agricultural Product Supply Chain Finance: A Three-tier Supply Chain Game Theory Analysis
Guangmei Lyu, Department of Mechanical, Automation, and Materials Engineering, University of Windsor, Windsor, Canada
International Business School, Hainan University, Haikou, Hainan, China
Qingkai Ji, Professor, International Business School, Hainan University, Haikou, Hainan, China
Guoqing Zhang, Professor, Department of Mechanical, Automation, and Materials Engineering, University of Windsor, Windsor, Canada

ID 172 A Hybrid Multi Criteria Decision Making Framework for Patient Centred Selection of Dental Treatment Options
Fatemeh Hamta Safarian, Dentist, Doctor of Dental Surgery, Faculty of Dentistry, Azad University of Tehran, Tehran, Iran
Meysam Shaverdi, PhD in Supply Chain and Logistics, RMIT University, Lecturer, Texila College, Melbourne, Victoria 3006, Australia

ID 223 Freemium Pricing and CRM Expenditures by a Digital Platform
Melina Asadi, Department of Decision Science, GERAD and HEC Montreal, Montreal, Canada
Georges Zaccour, Professor, Department of Decision Science, GERAD and HEC Montreal, Montreal, Canada
Can Baris Cetin, School of Administrative Studies, York university, Toronto, Canada

ID 249 The Integration of Artificial Intelligence in Tractor-Trailer Safety
Kate Eckland, Radar School of Business, Operations & System Management, Student, Milwaukee School of Engineering, Milwaukee, WI, USA

ID 144 Global Supply Chains at a Crossroads: Trade Liberalization, Inequality, and Policy Interventions
Sofiia Vaida, Department of Human Resource Management and Administration, Institute of Economics and Management, Lviv Polytechnic National University, Lviv, Ukraine
Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Sharfuddin Ahmed Khan, Associate Professor, Industrial Systems Engineering, Faculty of Engineering and Applied Science, University of Regina, Regina, Canada
Maham Sohail, Industrial Systems Engineering, Faculty of Engineering and Applied Sciences, University of Regina, Regina, Canada

4:00 – 5:30 pm, THURSDAY, October 16 **Virtual Room 5**

Session Chair:

Manufacturing, Quality, and Sustainability

ID 15 Modal analysis of wheel hub
Jiaying Zhang, Fairmont preparatory academy, Anaheim, USA

ID 135 Selection and Use of Quality Control Tools
Heet Patel, Het Patel, Himaalaya Sisodiya, Raj Hirpara, Hitarth Kharecha, Aayush Joshi and Rushi Katakiya, Mechanical Engineering Department, Pandit Deendayal Energy University, Gandhinagar, India

ID 240 Review of the Global Domestic Water Sources
Motsi Ephrey Matlakala, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg (UJ), Johannesburg, South Africa

Daramy Vandi Von Kallon, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg (UJ), Johannesburg, South Africa

ID 113 Risk Management in ESG: Components of the Preliminary Conceptual Model of the ESG Risk Canvas
Andreia Drozda Muncinelli, Master´s Student, Department of Industrial Engineering, Universidade Tecnológica Federal do Paraná, Paraná, Brasil
Edson Pinheiro de Lima, Professor, Department of Industrial Engineering, Universidade Tecnológica Federal do Paraná, Paraná, Brasil
Fabricio Stocker, Professor, Instituto de Desenvolvimento Educacional, Fundação Getúlio Vargas, Rio de Janeiro, Brasil
Gianfranco Muncinelli, Professor, Instituto de Desenvolvimento Educacional, Fundação Getúlio Vargas, Paraná, Brasil

ID 214 Economic Viability of Metal Additive Manufacturing Implementation
Abrar Ahmed, Gabriella Carlino, Aaron Raphael Henry Josephine, Wilbert Minoso and Johnson Adebayo Fadeyi, Department of Industrial and Systems Engineering, The State University of New York at Buffalo, USA

4:00 – 7:00 pm, THURSDAY, October 16 Room 6

Six Sigma Workshop and Yellow Belt Exam

Dr. Ahad Ali
Associate Professor
Director, Doctor of Engineering in Advanced Manufacturing
Director of Bachelor of Science in Industrial Engineering
Director, Master of Science in Industrial Engineering
Director of Smart Manufacturing and Lean Systems Research Group
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International

IEOM Student Chapters around the World

Algeria
1. Adrar University

Australia
2. Queensland University of Tech., Brisbane
3. UNSW-Canberra
4. University of Melbourne
5. University of Wollongong
6. University of Adelaide

Bahrain
7. University of Bahrain

Bangladesh
8. Ahsanullah University of Sci & Tech (AUST)
9. Bangladesh Institute of Management (BIM)
10. Bangladesh University of Textiles (BUTEX)
11. BUET
12. CUET
13. Daffodil International University (DIU)
14. DUET, Gazipur
15. European University of Bangladesh
16. International Islamic University of Chittagong
17. IUBAT
18. Jessore University of Science and Technology
19. Khulna University (KU)
20. Khulna University of Eng and Tech (KUET)
21. Military Institute of Science and Technology
22. National Institute of Textile Eng &Res (NITER)
23. Rajshahi University (RU)
24. SUST
25. University of Chittagong
26. World University Bangladesh (WUB)
27. BAUST
28. American International University-Bangladesh (AIUB)
29. BGMEA University of Fashion and Technology (BUFT)
30. IUB – Independent University, Bangladesh

Bolivia
31. Universidad Católica Boliviana

Botswana
32. University of Botswana

Brazil
33. Federal University of Sao Carlos (UFSCar)
34. Federal University of Santa Catarina (UFSC)
35. University of Sao Paulo (USP) – Sao Carlos
36. Federal Institute of Sao Paulo, Sorocaba
37. FACENS University, Sorocaba

Canada
38. Concordia University
39. Humber Institute of Tech and Adv Learning
40. Polytechnic Montreal
41. University of New Brunswick at Fredericton
42. University of Waterloo
43. University of Windsor
44. Wilfrid Laurier University

Colombia
45. Fundación Univ. Tecn. Comfenalco, Cartagena, Bolívar
46. University of Rosario, Bogota
47. University of Quindio
48. Universidad de San Buenaventura, Cali, Valle
49. Institución Universitaria Colegios de Colombia
50. Escuela Colombiana de Ingeniería Julio Garavito
51. Universidad Católica de Colombia
52. Universidad Santo Tomás de Aquino
53. Fundación Universitaria Internacional de La Rioja
54. Universidad América
55. Universidad Militar Nueva Granada (UMNG)
56. Universidad Cooperativa de Colombia (UCC)
57. Universidad del Norte
58. Corporación Universitaria Minuto de Dios – UNIMINUTO
59. Fundación Universitaria de Popayán
60. Universidad Nacional Abierta y a Distancia (UNAD)

Costa Rica
61. University of Costa Rica

Czech Republic
62. University of West Bohemia, Pilsen

Ecuador
63. Technical University of Ambato
64. Universidad San Francisco de Quito

Egypt
65. Zagazig University
66. Fayoum University
67. British University in Egypt

El Salvador
68. Escuela Superior de Economía y Negocios (ESEN), El Salvador

Ethiopia
69. Bahir Dar Institute of Technology
70. Addis Ababa University Institute of Technology
71. Mekelle University

Finland
72. University of Vaasa

France
73. IESEG School of Management
74. Lorraine University, Metz

Germany
75. Technical University Applied Sciences Augsburg

Ghana
76. Technological Education Institute (TEI), Larissa
77. Ho Technical University
78. University of Ghana

Greece
79. Accra Technical University

Haiti
80. Université Quisqueya

India
81. College of Eng and Tech, Bhubaneswar, Odisha, India
82. College of Engineering Guindy, Chennai
83. Guru Nanak Dev Engineering College
84. Pandit Dendayal Petroleum Univ., Gujrat
85. P.D.A. College of Engineering, Gulbarga
86. Vellore Institute of Technology
87. Vidya Jyothi Institute of Technology, Hyderabad
88. Universal College of Eng & Tech (UCET), Guntur
89. National Institute of Technology (NIT), Warangal
90. Jawaharlal Nehru Technological University Hyderabad
91. IITS, India
92. Birla Institute of Tech & Sciences (BITS Pilani)
93. Amrita School of Business – Bangalore
94. Amrita school of Arts and Sciences, Mysuru
95. Amrita School of Business, Coimbatore
96. Aligarh Muslim University, Aligarh
97. Mahant Bachittar Singh College Eng & Tech, Jammu
98. Baba Banda Singh Bahadur Eng College
99. Ramaiah University of Applied Sciences
100. Nawab Shah Alam Khan College Eng & Tech (NSAKCET
101. Global Institute Of Eng and Technology, Hyderabad
102. VNR Vignana Jyothi Institute of Eng and Technology
103. Siddhartha Institute of Engineering & Technology
104. Osmania University – The University College of Eng
105. VJTI Mumbai – Veermata Jijabai Technologic. Institute
106. BML Munjal University, Gurugram, India
107. AKTU University, Kanpur, India
108. Mufakkhamjah College of Eng. and Tech, Hyderabad
109. Methodist College of Engineering and Technology
110. Vardhaman College of Engineering
111. Dr B R Ambedkar National Institute of Technology, Jalandhar
112. B. V. Raju Institute of Technology, Vishnupur, Narsapur
113. Anjuman College of Engineering and Technology
114. Bharatiya Eng. Science & Technology Innovation University, (BESTIU), Gownivaripalli, Gorantla, Andhra Pradesh
115. HITAM - Hyderabad Institute of Technology and Management
116. JNTUH University College of Management Hyderabad, JNTUH
117. Siddaganga Institute of Technology, Tumakuru, Karnataka

Indonesia
118. Atma Jaya Catholic University
119. Bina Nusantara University (Binus), Indonesia
120. Institut Teknologi Bandung
121. Institut Teknologi Sepuluh Nopember (ITS)
122. Sampoerna University, Jakarta
123. Shipbuilding Institute of Polytechnic Surabaya
124. Tarumanagara University
125. UIN Sultan Syarif Kasim, Riau
126. Universitas Diponegoro (Undip)
127. Universitas Gadjah Mada (UGM)
128. Universitas Iqra Buru
129. UIN Sunan Kalijaga, Yogyakarta
130. Universitas Islam Negeri Alauddin Makassar
131. Universitas Sebelas Maret (UNS), Surakarta
132. University of Indonesia
133. Universitas Sumatera, Utara Medan
134. Narotama University, Surabaya
135. Universitas Pakuan, Bogor
136. Trilogi University
137. Universitas Muhammadiyah Riau
138. Universitas Muhammadiyah Palembang
139. Universitas Putera Batam, Kepulauan Riau

Iran
140. MehrAstan University, Guilan
141. University of Eyvanekey
142. Technical and Vocational University (TVU)
143. University of Tehran

Iraq
144. Babylon University

Israel
145. Sapir Academic College
146. Shamoon College of Engineering (SCE), Ashdod

Italy
147. University of Bologna
148. University of Salento

Japan
149. Ashikaga University
150. Gunma University

Jordan
151. Hashemite University

Kenya
152. Kenyatta University, Nairobi

Kuwait
153. Gulf University of Science and Technology

Libya
154. Libyan Academy

Malaysia
155. Universiti Malaysia Sabah (UMS)
156. Universiti Putra Malaysia (UPM)
157. Universiti Teknologi Malaysia (UTM)
158. Universiti Tun Hussein Onn Malaysia (UTHM)
159. Universiti Utara Malaysia (UUM)
160. University of Malay (UM)

Mexico
161. Instituto Politécnico Nacional (IPN), Mexico
162. Universidad del Caribe, Cancun
163. Tecnológico de Monterrey, Campus Monterrey

IEOM Student Chapters around the World

164. Universidad Industrial de Santander
165. Universidad Iberoamericana
166. Universidad de Guanajuato

Morocco
167. Akhawayn University
168. Ecole Mohammadia d'Ingénieurs (EMI)
169. Sidi Mohamed Ben Abdellah University of Fez
170. N. School of Appl Sci. Kenitra, Ibn Tofail Univ
171. Ecole Supérieure De Technologie, Fez
172. INPT

Mozambique
173. Eduardo Mondlane University

Namibia
174. National Univ. of Sci. and Tech. in Windhoek

Nepal
175. Kathmandu University
176. Tribhuvan University

Nigeria
177. Covenant University
178. University of Ibadan
179. University of Nigeria, Nsukka
180. University of Benin
181. Olabisi Onabanjo University

Oman
182. SQU - Sultan Qaboos University
183. MEC - Middle East College
184. GCET – Global College of Engineering and Technology

Pakistan
185. Dawood University of Eng and Technology, Karachi
186. Government College University Faisalabad
187. Mehran University of Eng and Tech, Jamshoro, Sindh
188. Riphah International University, Lahore Campus
189. University of Engineering and Technology, Lahore
190. UOT – Nowshera
191. Information Technology Univ. of the Punjab, Lahore
192. Sindh Institute of Management & Technology (SIMT), Karachi
193. NED University of Engineering & Technology, Karachi

Papua New Guinea
194. Papua New Guinea University of Technology

Paraguay
195. National University of Asuncion
196. Universidad del Cono Sur de las Américas
197. Colegio Técnico Nacional, Asuncioón,

Peru
198. National Univ of San Antonio Abad, Cusco
199. Universidad de Lima (ULima)
200. Universidad Peruana de Ciencias Aplicadas (UPC)
201. Universidad Ricardo Palma (URP)
202. Pontificia Universidad Católica del Perú (PUCP)
203. Universidad Privada del Norte (UPN)
204. Universidad Continental (UContinental)
205. Universidad de Ingeniería y Tecnología (UTEC)
206. Universidad Nacional de Ingeniería (UNI)
207. University of San Martin de Porres (USMP)
208. Universidad Nacional Tecnológica de Lima Sur
209. Universidad Nacional de San Agustín de Arequipa

Philippines
210. Bulacan State University, Malolos City, Bulacan
211. LPU Laguna
212. Mapua University
213. De La Salle University (DLSU) Manila
214. Adamson University
215. CEBU Technological University
216. University of San Jose-Recoletos
217. Quezon City University
218. De La Salle Lipa

Portugal
219. ISEL – Instituto Superior De Engenharia de Lisboa
220. FCT NOVA

Puerto Rico
221. Polytechnic University of Puerto Rico

Qatar
222. Qatar University
223. Hamad bin Khalifa University, Doha

Saudi Arabia
224. Alfaisal University
225. Effat University
226. King Abdulaziz University (KAU)
227. King Abdulaziz University, Rabigh
228. King Fahd Univ of Petroleum and Minerals (KFUPM)
229. King Khalid University, Abha
230. King Saud University (KSU)
231. Umm Al-Qura University (UQU)
232. Princess Nourah University (PNU)
233. Prince Sattam Bin Abdulaziz University
234. Prince Sultan University (PSU)
235. Taibah University
236. University of Tabuk
237. Taibah University
238. University of Business and Technology
239. King Khalid University, Abha
240. University of Bisha
241. Taif University
242. Al-Yamamah University
243. Al-Yamamah University, Al Khobar
244. Jazan University

Singapore
245. SUSS

South Africa
246. Durban University of Technology (DUT)
247. Tshwane University of Technology (TUT)
248. University of Johannesburg (UJ)
249. University of South Africa (UNISA)
250. Vaal University of Technology (VUT)

Sri Lanka
251. University of Kelaniya
252. University of Peradeniya

Sudan
253. Sudan University of Science and Tech Khartoum

Thailand
254. Chulalongkorn University, Bangkok
255. Chiang Mai University

Turkey
256. Turkish-German University
257. Uskudar University

UAE
258. University of Science & Technology of Fujairah

UK
259. University of Derby
260. University of the West of England, Bristol

USA
261. Central Connecticut State University
262. Eastern Michigan University
263. Lawrence Technological University, Michigan
264. University of the District of Columbia
265. Indiana State University
266. Florida Polytechnic University
267. Buffalo State College
268. Southern Arkansas University
269. Western Michigan University
270. Loyola University Chicago
271. Minnesota State University, Mankato
272. Central State University
273. University of Central Florida
274. Minnesota State University, Mankato
275. University of Texas – San Antonio (UTSA)
276. Capitol Technological University
277. Frostburg State University
278. Business School of Southern Arkansas University
279. Binghamton University State University of New York City

Venezuela
280. Catholic University Andrés Bello, Caracas

Vietnam
281. CFVG, Ho Chi Minh City, Vietnam

Zambia
282. University of Zambia
283. Copperbelt University
284. Evelyn Hone College

Zimbabwe
285. University of Zimbabwe, Harare
286. National University of Science and Technology
287. Harare Institute of Technology (HIT)
288. Women's University in Africa (WUA)
289. Chinhoyi University of Technology (CUT)

High School Chapters
290. Bay Area of San Francisco & San Jose, CA
291. Arongghata, Khulna, Bangladesh
292. Ironwood High School, Glendale, Arizona, USA

IEOM Student Chapter at Universitas Pakuan, Bogor, Indonesia

IEOM Student Chapter at University of Johannesburg, South Africa

IEOM Student Chapter at Universiti Tun Hussein Onn Malaysia (UTHM)

IEOM Student Chapter at Sampoerna University, Jakarta, Indonesia

IEOM Student Chapter at CEBU Technological University, Cebu City, Philippines

IEOM Student Chapter at Anjuman College of Engineering and Technology, Nagpur Maharashtra, India

IEOM Student Chapter at National Technological University from South Lima, Lima, Perú

IEOM Student Chapter at Western Michigan University, Kalamazoo, MI, USA

Faculty Advisors

Dr. Lee Wells
Associate Professor
Industrial and Entrepreneurial Engineering & Engineering Management
Western Michigan University
Kalamazoo MI, USA

Dr. Jim Burns
Assistant Professor
Industrial and Entrepreneurial Engineering & Engineering Management
Western Michigan University
Kalamazoo MI, USA

University and Department Website:
https://wmich.edu/
https://wmich.edu/ieeem/

Department Chair/Head: Dr. Azim Houshyar

Chapter Officers
President: Ahmad Al Majali
Vice President: Kathryn Christopher
Secretary: Moneshwaran Kannan
Treasurer: Paritosh Shinde
Director of Social Media: Nikhil Bankar
Director of Program/Activities: Vaibhav Vispute
Director of Membership: Abhishek Sonone
Director of Operations: Hrishikesh Lathi

Planned Activities:
Bell's Brewery Tour
Pfizer Tour
Lean Six Sigma Certification
Lawrence Tech Chapter Visit

IEOM Student Chapter at Technical University of Applied Sciences Augsburg, Augsburg, Germany

Faculty Advisor:

Dr. Simone Kubowitsch
Professor for Personnel Psychology
School of Business
Technical University of Applied Sciences Augsburg
Augsburg, Germany

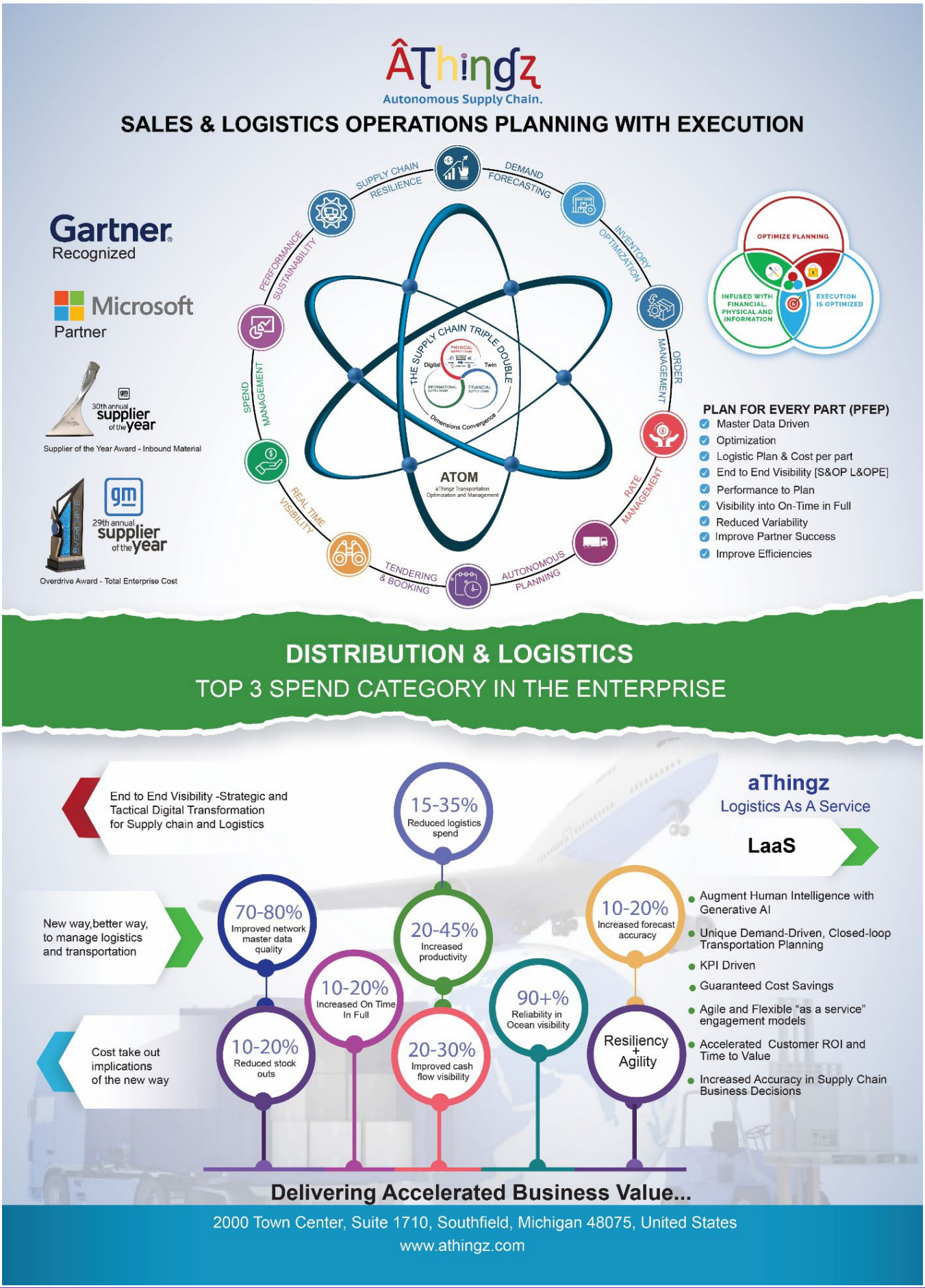
University or Department Website: https://www.tha.de/
Department Chair/Head: Prof. Dr. Gordon Rohrmair

IEOM Student Chapter Officers, April 2025	IEOM Student Chapter Members, April 2025
President: Joshua Braun Vice President: Filmon Zemo Director of Social Media: Kathrin Polly Director of Program/Activities: Natalie Hogh Director of Membership: Felix Pfeifer Director of Communication: Erik Bußjäger	Luca Stehle Jana Schäfer Phat Do Felix Gruber Julius Bauer Julian Huhn Julian Muffert Lisa Fuhrmann

IEOM Index Publication Database:

https://index.ieomsociety.org/

- ***This unique database is dedicated to research and achievements in the "Industrial Engineering and Operations Management" disciplines.***
- Each paper will have a unique DOI (Digital Object Identified) from CrossRef.
- Check all previous conference papers in the IEOM Index Publication Database Library – https://index.ieomsociety.org/.
- IEOM Conference DOI – https://index.ieomsociety.org/index.cfm/conference/list/
- Conference Proceedings will be published with an ISBN in a soft form – OPEN ACCESS.
- All accepted papers will be published with an ISBN Number.
- All full papers submitted for conference proceedings will be evaluated using a double-blind review process and published electronically in proceedings with a DOI number.
- All approved full papers will be sent for indexation to world known databases:
  - CrossRef
  - Google Scholar
  - IEOM Index Online Library
  - EBSCO


AThingz
Autonomous Supply Chain.
SALES & LOGISTICS OPERATIONS PLANNING WITH EXECUTION
Gartner Recognized
Microsoft Partner
30th annual supplier of the year
Supplier of the Year Award - Inbound Material
29th annual supplier of the year
Overdrive Award - Total Enterprise Cost
SUPPLY CHAIN RESILIENCE
DEMAND FORECASTING
INVENTORY OPTIMIZATION
ORDER MANAGEMENT
RATE MANAGEMENT
AUTONOMOUS PLANNING
TENDERING & BOOKING
REAL TIME VISIBILITY
SPEND MANAGEMENT
PERFORMANCE SUSTAINABILITY
THE SUPPLY CHAIN TRIPLE DOUBLE
Digital
Twin
Dimensions Convergence
ATOM
aThingz Transportation Optimization and Management
OPTIMIZE PLANNING
INFUSED WITH FINANCIAL, PHYSICAL AND INFORMATION
EXECUTION IS OPTIMIZED
PLAN FOR EVERY PART (PFEP)
Master Data Driven
Optimization
Logistic Plan & Cost per part
End to End Visibility [S&OP L&OPE]
Performance to Plan
Visibility into On-Time in Full
Reduced Variability
Improve Partner Success
Improve Efficiencies
DISTRIBUTION & LOGISTICS
TOP 3 SPEND CATEGORY IN THE ENTERPRISE
End to End Visibility -Strategic and Tactical Digital Transformation for Supply chain and Logistics
New way,better way, to manage logistics and transportation
Cost take out implications of the new way
15-35% Reduced logistics spend
70-80% Improved network master data quality
20-45% Increased productivity
10-20% Increased forecast accuracy
10-20% Increased On Time In Full
90+% Reliability in Ocean visibility
10-20% Reduced stock outs
20-30% Improved cash flow visibility
Resiliency + Agility
aThingz
Logistics As A Service
LaaS
Augment Human Intelligence with Generative AI
Unique Demand-Driven, Closed-loop Transportation Planning
KPI Driven
Guaranteed Cost Savings
Agile and Flexible "as a service" engagement models
Accelerated Customer ROI and Time to Value
Increased Accuracy in Supply Chain Business Decisions
Delivering Accelerated Business Value...
2000 Town Center, Suite 1710, Southfield, Michigan 48075, United States
www.athingz.com

p-ISSN 2633-6596
e-ISSN 2633-660X
Volume 04 Issue 01 2022

International Journal of Industrial Engineering and Operations Management

Emerald Publishing Services

Website: https://www.emeraldgrouppublishing.com/journal/ijieom/

IEOM Global Council, 2025 - 2026

Prof. Charles Mbohwa, PhD
President, 2025 - 2026
Distinguished Professor
University of South Africa (UNISA)
Pretoria, South Africa

Aaron Rubel
Research & Technology Senior Manager-University Partnerships
Airbus Americas
Mobile, Alabama, USA

Dr. Devinder Kumar Banwet
Vice Chancellor (Founding)
University of Engineering & Management, Kolkata, India
Former Professor and HOD, Dept. of Management Studies, IIT Delhi

Dr. Mario Chauca
Professor, Engineering Department
National Technological University from South Lima
Lima, Perú

Prof. Jose Arturo Garza-Reyes
Professor of Operations Management, Head of the Centre for Supply Chain Improvement
College of Business, Law and Social Sciences
Derby Management School
University of Derby, UK

Dr. Ali Elkamel
Professor
Department of Chemical Engineering
University of Waterloo
Canada

Dr. Matthew Pepper
Professor
School of Business
Faculty of Business and Law
University of Wollongong
NSW 2522 Australia

Dr. Abdelaziz Berrado
Chair and Professor
Dept. of Industrial Engineering
The Ecole Mohammadia d'Ingénieurs (EMI), Mohammed V University,
Rabat, Morocco

Professor Linda Zhang
Full Professor of Operations Management
Department of Management
IESEG School of Management
Paris la Defense, France

Dr. Ir. Wahyudi Sutopo, ST.
Professor, Department of Industrial Engineering
Vice Dean, Faculty of Engineering, Universitas Sebelas Maret (UNS),
Surakarta, Indonesia

Dr. Luis Rabelo
Professor
Department of Industrial Engineering and Management Systems
University of Central Florida
Orlando, Florida, USA

Luz María Valdez de la Rosa, Ph. D.
Professor
School of Engineering and Technology
Universidad de Monterrey
Nuevo León, Mexico

IEOM™

IEOM Society

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

Industrial Engineering and Operations Management Society International

Upcoming IEOM Conferences

IEOM Society

3rd GCC International Conference on
Industrial Engineering & Operations Management
Tabuk, Saudi Arabia, Dec. 1-3, 2025
Host & Venue: University of Tabuk

University of Tabuk

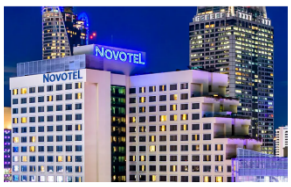
IEOM Society

4th Australian Conference on
Industrial Engineering and Operations Management
Nov. 25-27, 2025, Melbourne
Venue: Batman's Hill Hotel on Collins

THE UNIVERSITY OF MELBOURNE

IEOM Society

7th Asia Pacific Conference on
Industrial Engineering and Operations Management
Bangkok, Thailand, March 25-27, 2026
Venue: Novotel Bangkok On Siam Square



THAMMASAT UNIVERSITY
CENTER OF EXCELLENCE IN CONNECTIVITY

IEOM Society

7th African International Conference on
Industrial Engineering and Operations Management
Cape Town, South Africa, May 13-15, 2026
Host and Venue: CPUT, Cape Town

Cape Peninsula University of Technology

IEOM Society

11th North American Conference on
Industrial Engineering and Operations Management
Milwaukee, Wisconsin, USA, June 9-11, 2026
Host: University of Wisconsin, Milwaukee

UNIVERSITY OF WISCONSIN MILWAUKEE

IEOM Society

16th International Conference on
Industrial Engineering and Operations Management
June 23-26, 2026, Ankara, Turkey
Host and Venue: Gazi University, Ankara

GAZİ UNIVERSITY Gazi 1926

IEOM Society

3rd World Congress on
Industrial Engineering & Operations Management
Monterrey, Mexico, October 13-15, 2025
Host and Venue: University of Monterrey

UDEM
UNIVERSIDAD DE MONTERREY

Theme: Advanced Manufacturing and Industrial AI Innovation

Industrial Engineering and Operations Management Society International