

IEOM Paris Conference July 2-4, 2025

# **Sponsors and Partners**









































# **Organizer**



# **IEOM Society**

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

**Industrial Engineering and Operations Management Society International** 

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

# Welcome to the 8<sup>th</sup> European Conference on Industrial Engineering and Operations Management, Paris, France, July 2-4, 2025

### To All-Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to the 8<sup>th</sup> European International Conference on Industrial Engineering and Operations Management, in Paris, France, July 2-4, 2025. It is hosted by the IESEG,, School of Management. This unique international conference provides a forum for academics, researchers, and practitioners from many industries to exchange ideas and share recent developments in the fields of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. More than 400 papers/abstracts were submitted from 42 countries. After a thorough peer-review process, more than 270 have been accepted for presentation and publication. The program includes many cutting-edge topics in industrial engineering and operations management.

This conference will address many issues concerning issues of the continuous improvement of quality and service. The IEOM Society is delighted to have the following keynote speakers at the 9th North American Conference:

- 1. Dr. Robert Joliet, Academic Director of Programs, Associate Professor of Finance, IÉSEG School of Management, France
- 2. Dr. George Q. Huang, Chair Professor of Smart Manufacturing and Director of Research Institute for Advanced Manufacturing, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hong Kong
- 3. Dr. Maged M. Dessouky, Dean's Professor of Industrial and Systems Engineering, and Department Chair, Daniel J. Epstein Department of Industrial and Systems Engineering, University of Southern California, Los Angeles, CA, USA
- 4. Dr. Pervaiz Akhtar, PhD, MSc, MBA, BSc, PCAP & HE UK Senior Fellow, Chair Professor in Business Analytics, Big Data & Supply Chains and Director of MBA Programmes, University of Aberdeen, Aberdeen, UK
- 5. Bouchra LE HIR, Vice President Digital Transformation & Artificial Intelligence, Forvia Interiors, Paris, Île-de-France
- 6. Dr. Farouk Yalaoui, Full Professor, Senior Director (VP) for Research, University of Technology of Troyes (UTT), France
- 7. Dr. Guoqing Zhang, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor, Windsor, Canada
- 8. Dr. Petri Helo, Professor of Industrial Management and Head of Networked Value Systems Research Group, School of Technology and Innovations, University of Vaasa, Finland
- 9. Dr. Min Xie, Chair Professor, Department of Systems Engineering and Chair Professor, Affiliate, Department of Data Science, City University of Hong Kong
- 10. Romain Bruniaux, Group Industrial VP & Power Division Industrial VP, Valeo, Paris, France
- 11. Dr. Jianxin (Roger) Jiao, Associate Professor of Enterprise Systems Engineering, G,W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA, USA
- 12. Dr. Alexandre Dolgui, Professor and Head, Automation, Production and Computer Sciences Dept., IMT Atlantique, LS2N-CNRS, NANTES Cedex 3, France and Editor-in-Chief, International Journal of Production Research (IJPR)
- 13. Dr. Bingwen Yan, Professor, Head of Department, Department of Industrial & Systems Engineering, Cape Peninsula University of Technology, Cape Town, South Africa

There is a possibility to publish quality papers in two prestigious journals, including the International Journal of Production Research (IJPR) and the Journal of Engineering Design (JED). Two meet the editors panels, SCM panel, AI in Manufacturing panel, Women in Industry and Academia Panels, six sigma workshop, and entrepreneurship and innovation workshops are arranged.

The IEOM Society would like to express our deep appreciation to our sponsors, university partners, organization partners, exhibitors, authors, reviewers, keynote speakers, panelists, track chairs, advisors, the local committee, and the many volunteers who have given so much of their time and talent to make this unique international conference an overwhelming success. There are many famous sightseeing sites in Paris.

Our conference host, the IESEG, School of Management, would like to extend a warm welcome to all participants.

Our very best wishes to all of you for a successful and memorable event in Paris.



Dr. Linda ZHANG
Conference Chair
IEOM Fellow and Global Council Member
Professor of Operations Management
IESEG School of Management
Paris La Defense, France



Dr. Ahad Ali
Conference Co-Chair
Associate Professor and
Director of Industrial Engineering
Lawrence Technological University
Southfield, Michigan, USA
CEO, IEOM Society International



Prof. Don Reimer
Program Chair
IEOM Fellow
Chief Operating Officer
IEOM Society International
Southfield, Michigan, USA

IEOM Paris Conference Keynote Speakers July 2-4, 2025

# **Keynote Speakers**

### Wednesday, July 2, 2025

Welcome Address from the Host University: Wednesday, July 2, 2025, 10:00 - 10:20 am



Dr. Robert Joliet Academic Director of Programs Associate Professor of Finance IÉSEG School of Management, France

Robert Joliet is an Associate Professor of Finance and currently the Academic Director of Programs at IÉSEG School of Management and a member of the Management Board of the School. He holds a Ph.D. in Economics and Management from HEC Liège in Belgium. His research focuses on asset allocation, sustainable finance, and decision-making under uncertainty, with publications in leading journals such as Economics Letters, the Journal of Banking and Finance, the Journal of International Money and Finance and the Journal of International Financial Markets, Institutions and Money. Prof. Joliet has held various leadership roles at IÉSEG School of Management, including Head of the Finance, Audit-Control Department and Director of Academic Development. He is a member of the Lille Économie Management (LEM) CNRS research lab.

Opening Keynote I: Wednesday, July 2, 2025, 10:20 – 11:00 am



Prof. George Q. Huang
Chair Professor of Smart Manufacturing & Director of Research Institute for Advanced Manufacturing
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

eorge joined Department of Industrial and Systems Engineering at The Hong Kong Polytechnic University in December 2022 as Chair Professor of Smart Manufacturing. Prior to this appointment, he was Chair Professor of Industrial and Systems Engineering and Head of Department in Department of Industrial and Manufacturing Systems Engineering at The University of Hong Kong. He gained BEng and PhD in Mechanical Engineering from Southeast University (China) and Cardiff University (UK) respectively. He has conducted research projects in areas of Smart Manufacturing, Logistics, and Construction through IoT-enabled Cyber-Physical Internet and Systems Analytics. His research has been supported with substantial government and industrial grants. He has directed a strong research team and collaborated closely with leading academic and industrial organizations through joint projects and start-up companies. He has published extensively and his works have been highly cited by research communities. He serves as associate editors and editorial members for several international

journals. He is Chartered Engineer (CEng), Fellow of IEEE, IISE, ASME, HKIE, IET and CILT.

**Keynote II:** Wednesday, July 2, 2025, 11:00 – 11:40 am



Dr. Maged M. Dessouky
Dean's Professor of Industrial and Systems Engineering
Professor of Industrial and Systems Engineering and Spatial Sciences Institute
Department Chair, Daniel J. Epstein Department of Industrial and Systems Engineering
USC Viterbi School of Engineering
University of Southern California, Los Angeles, California, USA

Dr. Dessouky received his B.S. and M.S. degrees in Industrial Engineering from Purdue University in 1984 and 1987, respectively. He obtained his Ph.D. degree in Industrial Engineering and Operations Research from the University of California at Berkeley in 1992. His research has been funded by the National Science Foundation, Society of Manufacturing Engineers, PATH, Caltrans, FTA, and Department of Defense. He was recipient of the 2007 Transportation Science & Logistics Best Paper Prize ("Optimal Slack Time for Schedule-Based Transit Operations"). He is a Fellow of the Institute of Industrial Engineers. Dr. Dessouky was a recipient of IIE Operations Research Division Excellence in Teaching Award, the USC Associates Award in Teaching (Top University Award for Teaching), Alpha Pi Mu/Omega Rho Outstanding Teacher of the Year in Industrial Systems Engineering, the USC Award for Excellence in Teaching, and the TRW School of Engineering Teacher Award. He is area/associate editor of Computers & Industrial Engineering, IIE Transactions, and Transportation Research Part B: Methodological, on the editorial board of Transportation Research Part E: Logistics and

Transportation Review, and previously served as Area Editor of ACM Transactions of Modelling and Computer Simulation and IEEE Transactions on Intelligent Transportation Systems.

**Keynote III:** Wednesday, July 2, 2025, 11:40 am – 12:20 pm



Pervaiz Akhtar, PhD, MSc, MBA, BSc, PCAP & HE UK Senior Fellow Chair (Full Professor) in Business Analytics, Big Data & Supply Chains Director of MBA Programmes University of Aberdeen, Aberdeen, UK

Pervaiz Akhtar is Director of the MBA suite of programmes and Chair (Full Professor) in Business Analytics, Big Data and Supply Chains. Professor Akhtar utilises mixed methods and modelling to optimize and de-risk operational performance, supply chains and business value. He was Associate Dean of Graduate Studies before joining the University of Aberdeen. He has been a Visiting Professor of Big Data and Business Analytics/Management Science (e.g., IESSEG, France) and a member of Executive Groups. He is also associated with Imperial College London, as his philosophy of continuous learning.

Due to his all-round excellence in leadership, research and teaching, he is one of only 155 academics across all disciplines in the UK who earned their Professorship under the age of 35 as per HE records and became the youngest professor from his country of origin (out of over 212 million population). He has also set consecutive promotion records.

Professor Akhtar has capitalised on over 20 years of academic, consulting and industrial experiences from the UK, France, New Zealand and other countries – played leading roles in teaching and research. By integrating informatics, analytics and big data applications in undergraduate and postgraduate programmes, Professor Akhtar serves to bridge the gap between academic practices and industrial requirements. He has played multiple senior management roles in industry and worked with private and non-profit-making organizations such as UNICEF, JCCP, Oxfam, MSF, Islamic Relief, Red Cross, Unilever and Reckitt Benckiser.

Along with his intriguing interdisciplinary education (BSc in Double Major Mathematics and Statistics, MBA, MSc in Logistics and Supply Chains, PCAP, Senior UKHE Fellowship, PhD in Supply Chain and Operations Management with extensive Data Science Applications), his research has appeared in top-ranked journals (i.e., A\*/FT50/CABS4/Q1) spanning a range of domains and industries including food, healthcare, FMCG, manufacturing, humanitarian operations, performance measurement, business value creation, logistics, supply chains, technology, big data analytics and data science skills.

He has extensive experience of supervising UG, PG and PhD students and warmly welcomes all students. PhD students are particularly encouraged to apply in his area of interest such as big data, blockchain technology, analytics, humanitarian logistics and business operations. Professor Akhtar has worked on multiple projects with more than 20 companies and organizations worldwide (e.g., United Kingdom, United States, Canada, Australia, New Zealand, India, Malaysia, Pakistan and Europe). He has completed more than 10 funded projects and received awards – the value more than £5 million

Keynote IV: Wednesday, July 2, 2025, 12:20 - 1:00 pm



Bouchra LE HIR Vice President Digital Transformation & Artificial Intelligence Forvia Interiors Paris, Île-de-France, France

Bouchra Le Hir is Vice President of Digital Transformation and Artificial Intelligence and a Board Member of FORVIA Interiors. With over a decade of international leadership experience, she plays a key role in accelerating FORVIA Interiors' digital strategy and deploying Al-powered solutions across the organization.

Before joining FORVIA, Bouchra held several strategic positions at SKF, contributing to global operations across France, India, China, the United States, and Germany. Her global perspective and proven ability to lead cross-functional initiatives make her a recognized expert in digital innovation and organizational transformation.

Bouchra holds a dual Master's degree in Chemistry of Transformation and in Materials Engineering.

She is passionate about harnessing technology to drive sustainable growth and improve industrial performance, making her a compelling voice on digital transformation, AI, and the future of mobility".

### Thursday, July 3, 2025

Keynote V: Thursday, July 3, 2025, 9:40 - 11:20 am



9.40 – 11.20 am

Dr. Farouk Yalaoui

Senior Director (Vice President) for Research and Full Professor

University of Technology of Troyes (UTT), Troyes, France

Professor Farouk YALAOUI is currently a full Professor at Troyes University of Technology (UTT), France, where he is the Senior Director for Research of UTT. He is also scientific director of Industrial Chair "Connected Innovation" of UTT since 2016. He is the former director of LOSI Lab. (Logistiques et Optimisation des systèmes Industriels) of UTT and and former director of Services and Industries of The future of Troyes Institute (ISIFT). He obtained his Engineering degree in Industrial Engineering from the Polytechnics School of Algiers (Algeria) in 1995, his master's degree in Industrial System Engineering from Polytechnics Institute of Lorraine (Nancy, France) in 1997, his Ph.D. degree in Production Management from the Troyes University of Technology (UTT) in 2000 and followed by a Habilitation à diriger les recherches (Dr. Hab) from Compiegne University of Technology (UTC) in 2006. His research topic focuses on the scheduling problems, system design, operations research, modeling, analysis and optimization of logistic and production systems, reliability and maintenance optimization and on optimization problems in general. He supervised or co-supervised 29

Ph.D thesis and more than 82 projects since 2001. He is founder and partner of OPTA LP SAS company since 2013.

He is author or co-author of a pattern and more than 520 contributions, publications or communications with 1 patent; 3 books (Ellipses, Hermes-Lavoisier, Willey and Sons), 6 edited books (Springer), 16 book chapters and 102 papers in journals such as IIE Transactions, European Journal of Operational research, International Journal of Production Economics, IEEE Transactions on Reliability, Reliability Engineering and System Safety, Computer & Operations research, Journal of Intelligent Manufacturing. He also published more than 320 papers in conference proceedings. He had presented 60 invited speeches (seminaries or conferences plenary sessions). He was invited by different universities (11) more than 20 times.

He is member of editor board of the book series "Automation and Control – Industrial Engineering", ISTE Wiley, London, since 2014. He served or serves as editor to 20 International journal Boards: Engineering Applications of Artificial Intelligence (EAAI, Elsevier, IF. 6,212, 2022), The Scientific World Journal as part of the journal's Operations Research subject area (TSWJ), International journal of Supply and Operations Management (IJSOM), British Journal of Mathematics & Computer Science (BJMCS), Journal of Risk Analysis and Crises Response (JRACR), Journal., American Journal of Operations Research (AJOR), Industrial Engineering and Management (IEM), Advances in Computer Science and Engineering (ACSE), Modeling and Simulation in Engineering (MSE), Advances in Artificial Intelligence (AAI), International Journal of Applied Logistics (IJAL). He served as guest editor for Journal special issue (Journal of Multiple Valued Logic and Soft Computing, Journal of Intelligent Manufacturing). He is reviewer for more than 36 international journals.

IEOM Paris Conference Keynote Speakers July 2-4, 2025

He is founder and member of steering committee of IWOLIA (since 2010) SHEIC (since 2019) and member IESM-MOSIM Steering Committee, since 2019, Membre IFAC/MIM Steering Committee, since 2021. He is advisory Committees/Organizing Committees members of 36 conferences. He is also member of several international conference committees (about 154 conferences) as (INCOM2021, IFAC WC 2020, IEEE ICALT'2019, INCOM 2018, ICINCO 2017, ACIIDS 2017, IEEE SSCI 2016, MIM 2016, INCOM2015, IESM 2015, MIC'2015, SSEMO-WCCI 2014, IEEE-CIPLS 2014, FLINS'14, IEEE-CIPLS 2013, CIIA'2013, EMO13, MIM 2013, CODIT 2013, ICSENT'2012, IEEM 2012,), member more than 25 organization committees of conferences and general Chair of IFAC MIM 2016. He organized and or Chair more than 115 tracks or sessions in conference.

He is Vice Chair of IFAC (International federation of Automation and Control) TC group 5.2. He is Chair of a Working Group on multiobjective optimization. He is member of IFAC TC group 5.1. He is member of French Universities National Council (CNU) field Automation, Control, Industrial Engineering (section 61). He is member and expert for French ANR agency, and for different agency such French AERES Agency, Natural Sciences and Engineering Research Council of Canada (NSERC), Algerian PNR program. He is member of Algerian Academy of Science and Technology (AAST) since 2015. He obtained of Annual Award 20117 of the IFAC French National Member Organization (NMO).

**Keynote VI:** Thursday, July 3, 2025, 10:20 – 11:00 am



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.

Keynote VII: Thursday, July 3, 2025, 11:00 - 11:40 am



Dr. Petri Helo
Professor of Industrial Management, Logistics Systems
Head of Networked Value Systems Research Group
School of Technology and Innovations
University of Vaasa
Finland

Petri Helo is Professor of Industrial Management, Logistics Systems and the head of Networked Value Systems research group, at School of Technology and Innovations, University of Vaasa, Finland. His research addresses the management of supply demand networks and use of information technology in operations. Prof. Helo is also partner and board member at Wapice Ltd, a software solution provider of CPQ and IoT solutions.

Keynote VII: Thursday, July 3, 2025, 11:40 am - 12:20 pm



Dr. Min Xie Chair Professor, Department of Systems Engineering, Chair Professor, Affiliate, Department of Data Science, City University of Hong Kong, Kowloon, Hong Kong, PRC

M. Xie completed his undergraduate studies in Sweden, earning a direct MSc from the Royal Institute of Technology in 1984, followed by a PhD from Linköping University in 1987. In 1991, he joined the National University of Singapore (NUS) as one of the first recipients of the prestigious Lee Kuan Yew Research Fellowship, later becoming a full professor in 2005. In May 2011, Professor Xie moved to the City University of Hong Kong (CityU), as Chair Professor of Industrial Engineering. He has conducted extensive research in industrial engineering, focusing on reliability engineering and quality management, and has published over 300 journal articles and authored 10 books. At NUS and CityU, Prof Xie supervised more than 70 PhD students, now holding positions in industry and academia across various continents. Prof Xie has also served as editor, associate editor, or on editorial board member for over 10 leading international journals. Prof Xie was elected a Fellow of the IEEE in 2005 and elected to the European Academy of Sciences and Arts. He currently serves

as Chairman of Fellow Evaluation Committee for IEEE TEMS society and VP for Asian Region of IISE.

**Keynote VIII:** Thursday, July 3, 2025, 12:20 – 1:00 pm



Romain BRUNIAUX, Ph.D.
Valeo Group Industrial Vice-President
Power Division Industrial Vice-President
Paris, France

### Presentation Title: Data Science and Artificial Intelligence in Valeo's Factories

Dr. Romain Bruniaux studied in the USA and France. He spent 6 months in 1995 at University of Iowa (Iowa City) working with Professor Andrew Kusiak about production cell optimization. In France, he studied in the French Institute for Advanced Mechanical Engineering (Clermont Ferrand) from 1992 to 1996, specializing in Production Systems. He is an IFMA engineer. He completed his Ph.D. with Doctor Christophe Caux and Professor Henri Pierreval in Clermont Ferrand University. His Ph.D. is dedicated to continuous simulation of industrial site networks, applied to supply chains in the automotive industry. After a first research period,

Romain decided in 2000 to join the Automotive Industry: he took various management positions in the Stellantis factory (Poissy). Then, he joined

Alstom Transport (Railway Industry) in 2006 to take the position of Lean Manufacturing Director, deploying the Alstom Production System in 28 production sites in the world. Romain became in 2010 Site Managing Director of a 700 people factory in Le Creusot. In 2013, he was promoted to become successively quality director and industrial director for a scope of 25 sites at Alstom Transport Headquarter in Saint-Ouen. Romain joined Valeo in 2018, back in the Automotive industry. He started at Valeo as Industrial Director for a Product Group (15 factories worldwide). After successive promotions, Romain is today Valeo Group Industrial Vice-President and Power Division Industrial Vice-President, covering more than 150 factories in the world. His current responsibilities include the definition of the industry 4.0 roadmap for the entire Valeo group, with a specific focus on Data Science and Artificial Intelligence.

### Friday, July 4, 2025

Remarks from Conference Chairs: Friday, July 4, 2025, 10:00 - 10:00 am

Keynote IX: Friday, July 4, 2025, 10:20 - 11:00 am



Dr. Jianxin (Roger) Jiao Associate Professor of Enterprise Systems Engineering G.W. Woodruff School of Mechanical Engineering Georgia Institute of Technology, Atlanta, GA, USA

Dr. Jiao joined the Woodruff School in December 2008. Prior, he was an Assistant Professor and then Associate Professor in the School of Mechanical & Aerospace Engineering at Nanyang Technological University, Singapore. Before his career in Singapore, he was a Visiting Scholar in the Department of Industrial Engineering and Engineering Management at Hong Kong University of Science and Technology from 1998 to 1999. From 1993 to 1994, he was a Lecturer of Industrial Engineering in the School of Management at Tianjin University, China, and from 1988 to 1990, he worked as an Associate Lecturer in the Department of Industrial Design at Tianjin University of Science and Technology, China.

Dr. Jiao's research activities are geared toward a good leverage of practical relevance and academic rigor. He is interested in a number of investigations related to an extended enterprise, involving engineering design and product development (design theory and methodology, product family and product platform, customer requirement management, affective design and Kansei engineering, design project management, service modeling and service delivery system design), enterprise engineering and industrial systems (reconfigurable manufacturing systems, production planning and control, supply chain management and engineering logistics, system modeling and simulation, sales/marketing manufacturing interface, global manufacturing and operations, mass customization), as well as manufacturing and management information systems (artificial intelligence in design and manufacturing, industrial applications of e-commerce, virtual enterprise).

His research is motivated by the current trend of manufacturing companies to move toward global manufacturing in order to better leverage capabilities and resources worldwide. Product realization then becomes globally distributed and necessitates collaboration that transcends geographic boundaries. Strategic engineering with a focus on product creation suggests itself to be of primary importance for companies to gain competitive edges. Product design has to address individual customer needs along with diverse market niches, while maintaining low costs and near mass production efficiency. Build-to-order and reconfiguration have become common norms. The traditional spectrum of product fulfillment therefore must be expended to encompass marketing, design, production, as well as supply and value chains; and must be aligned with the self-adaptability of a learning organization. Dr. Jiao's vision is that the product creation horizon will be shifted from a physical product perspective to a total life cycle experience. Product creation should be more than just dealing with pieces of hardware, but rather should be enacted as the co-design of an entire ecosystem, including fulfillment, services, experiences and human satisfaction at the individual and the community levels. Education: Ph.D. (Industrial Engineering), Hong Kong University of Science and Technology, Hong Kong, 1998, M.E. (Intelligent Manufacturing), Tianjin University, China, 1993 and B.E. (Mechanical Design), Tianjin University of Science and Technology, China, 1988.

**Keynote X:** Friday, July 4, 2025, 11:00 – 11:40 am



Alexandre Dolgui, Dr.habil., Ph.D., IISE Fellow Professor and Head, Automation, Production and Computer Sciences Dept. IMT Atlantique, LS2N-CNRS, La Chantrerie, 4, rue Alfred Kastler, NANTES Cedex 3, France Editor-in-Chief, International Journal of Production Research (IJPR)

Dr. Alexandre Dolgui is an IISE Fellow, Distinguished Professor and the Head of Automation, Production and Computer Sciences Department at the IMT Atlantique, France. His research focuses on manufacturing line design, production planning and supply chain optimization. His main results are based on the exact mathematical programming methods and their intelligent coupling with heuristics and metaheuristics algorithms. He is the co-author of 5 books, the co-editor of 25 books or conference proceedings, the author of 270 refereed journal papers, 4 prefaces of books, 31 editorials and 37 book chapters as well as over 400 papers in conference proceedings. He is the Editor-in-Chief of the International Journal of Production Research, an Area Editor of Computers & Industrial Engineering, past Associate Editor of International Journal of Systems Science (2005-2008), IEEE Transactions on Industrial Informatics (2006-2009) and Omega-the International

Journal of Management Science (2009-2012), consulting Editor of the International Journal of Systems Science (2009-). He is Member of the Editorial Boards for 27 other journals, including the International Journal of Production Economics. He is an Active Fellow of the European Academy for Industrial Management, Member of the Board of the International Foundation for Production Research, former Chair of IFAC TC 5.2 Manufacturing Modelling for Management and Control (2011-2017, currently a vice chair), Member of IFIP WG 5.7 Advances in Production Management Systems, IEEE System Council Analytics and Risk Technical Committee, Guest editor of special issues of European Journal of Operational Research, International Journal of Production Economics, Omega – The International Journal of Management Science, Journal of Intelligent Manufacturing, Journal of Mathematical Modeling and Algorithms, and Annual Reviews in Control; he was General Scientific Chair of the 12th IFAC symposium INCOM'06, and IFIP APMS'2021, Chairman of International Program Committee of SCM'02, MOSIM'04, INCOM'09, INCOM'12, IESM'13, MIM'13, INCOM'15, IESM'17, GSC'18, MIM'19 and Chairman of Steering committee of MIM'16. Chairman of Organizing Committee of the International Conference MOSIM'01 and ROADEF'2011; last ten years, he was Member of Program Committees of over 200 International Conferences.

**Keynote XI:** Friday, July 4, 2025, 11:40 am – 12:20 pm



Prof Bingwen Yan Head, Department of Industrial & Systems Engineering Cape Peninsula University of Technology Cape Town, South Africa

Bingwen Yan is based at Faculty of Engineering and The Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa. Bingwen Yan is a professor and the Head of the Department of Industrial and Systems Engineering at the Faculty of Engineering and Built Environment, Cape Peninsula University of Technology, South Africa. His research spans a wide range of fields, including industrial engineering, engineering management, public administration and business management.

**Keynote XIII:** Friday, July 4, 2025, 12:20 – 12:40 pm



Dr. Thierry Benoist Founder and CEO of Hexaly Paris, France

Thierry Benoist is an Operations Research expert with 25 years of experience bridging research and industry applications. He founded Hexaly in 2012 to provide the market with a new kind of mathematical optimization solver. Before that, he worked for 10 years delivering OR solutions in various industries like manufacturing, transportation, construction, telecom, advertising, banking, and energy. He holds a Ph.D. in Computer Science and has won several awards in Operations Research.

### Participants from the following countries and territories

Algeria 1. 2. Australia 3. Bangladesh 4. Belgium Botswana 5. Brazil 6. 7. Canada 8. China Colombia 9 10. Cyprus 11. Czech Republic 12. Denmark

pants from the

13. Finland
14. France
15. Germany
16. Greece
17. Hungary
18. India
19. Indonesia
20. Iran
21. Ireland
22. Italy
23. Jordan
24. Kuwait

25. Latvia
26. Malaysia
27. Mexico
28. Morocco
29. Oman
30. Peru
31. Philippines
32. Portugal
33. Qatar
34. Romania
35. South Africa
36. South Korea

37. Spain
38. Taiwan
39. Tunisia
40. Turkey
41. UAE
42. United Kingdom
43. United States
44. Zambia
45. Zimbabwe

### **Corporate Partners**

Airbus
Amatrol Inc.
aThingz
Daikin Applied
Eaton
Ford Motor Company
FUTEK
Hexaly
SIEMENS
Tooling Tech Group

### **University Partners**

IESEG School of Management, Lille-Paris, France Universite De Lorraine, Nancy cedex – France

University of Derby, UK

Lawrence Technological University, Southfield, Michigan, USA

Bharatiya Engineering Science & Technology Innovation University (BESTIU),

Gownivaripalli, Gorantla, Andhra Pradesh, India

Binghamton University, The State University of New York (SUNY), USA

Eastern Michigan University, USA

Universidad de Monterrey (UDEM), Mexico Universitas Sebelas Maret, Surakarta, Indonesia

University of New Brunswick at Fredericton, Canada

University of the District of Columbia (UDC), Washington, DC, USA

Wayne State University, Detroit, USA

# **Panels**

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

2:00 - 3:30 pm, July 2, 2025

### Panel Co-Chairs



Sagit Kedem-Yemini Logistics Department Sapir Academic College Sderot, Israel

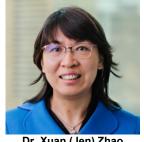


**Dr. Anjali Awasthi**Professor, CIISE, Concordia
University, Montreal, Canada
Past President, Canadian
Operations Research Society

### **Panelists**



Dr Luz María Valdez de la Rosa
Profesora del Departamento de
Ingeniería Civil y Gestión
Escuela de Ingeniería y
Tecnologías
Universidad de Monterrey,
Monterrey, NL, Mexico



Dr. Xuan (Jen) Zhao
Professor in Operations and
Decision Sciences
Lazaridis School of Business and
Economics
Wilfrid Laurier University,
Waterloo, Ontario, Canada



Zhe Yuan Associate Professor EMLV Business School, Paris, France



Dr. Carman Ka Man Associate professor Department of Industrial and Systems Engineering The Hong Kong Polytechnic University, Hong Kong, PRC

4:00 - 5:30 pm, July 2, 2025

### **Meet the Editors Panel I**

### Co-Chairs



Dr Carman Ka Man Associate professor Department of Industrial and Systems Engineering The Hong Kong Polytechnic University, Hong Kong, PRC



Dr. Laoucine Kerbache
Professor and Head of
Engineering Management
& Decision Sciences Division
Hamad Bin Khalifa University,
Doha, Qatar

### **Panelists**



Dr. Jianxin (Roger) Jiao
Associate Professor of Enterprise
Systems Engineering
G.W. Woodruff School of
Mechanical Engineering
Georgia Institute of Technology,
Atlanta, USA



Prof. George Q. Huang
Chair Professor of Smart
Manufacturing
Department of Industrial and
Systems Engineering
The Hong Kong Polytechnic
University, Kowloon, Hong Kong



Dr. Maged M. Dessouky
Dean's Professor of Industrial
and Systems Engineering
University of Southern California
Los Angles, California, USA



Dr. Min Xie
Chair Professor, Department of
Systems Engineering
City University of Hong Kong
Tat Chee Avenue, Kowloon,
Hong Kong, PRC

# Panel on Global Supply Chain and Logistics

2:00 - 3:30 pm, July 3, 2025

### Panel Chair



Pervaiz Akhtar, Ph.D., MSc, MBA, BSc, PCAP & HE UK Senior Fellow, Chair (Full Professor) in Business Analytics, Big Data & Supply Chains Director of MBA Programmes University of Aberdeen, UK

### **Panelists**



Dr. Mira Chitt
Head of Mechanical Engineering
Department and Engineering
Management
Global College of Engineering
and Technology, Muscat, Oman



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



Dr. Petri Helo
Professor of Industrial
Management, Logistics Systems
Head of Networked Value
Systems Research Group
University of Vaasa, Finland



Surajit Bag, PhD
Full Professor, Department of
Supply Chain, Purchasing and
Project Management
CERIIM – Centre de Recherche
en Intelligence et Innovation
Managériales, Rochelle, France

# Ph.D. Workshop

4:00 – 5:30 pm, July 3, 2025

### Chair



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

### Speakers



**Dr. Roel Leus**Professor of Operations Research
KU Leuven
Leuven, Belgium



Dr. Jianxin (Roger) Jiao
Associate Professor of Enterprise
Systems Engineering
G.W. Woodruff School of
Mechanical Engineering
Georgia Institute of Technology,
Atlanta, GA, USA



Dr. Petri Helo
Professor of Industrial
Management, Logistics Systems
Head of Networked Value Systems
Research Group, School of
Technology and Innovations
University of Vaasa, Finland



Prof. George Q. Huang
Chair Professor of Smart
Manufacturing
Department of Industrial and
Systems Engineering
The Hong Kong Polytechnic
University, Hong Kong

# Al in Manufacturing Panel

2:00 – 3:30 pm, July 4, 2025

### **Panel Chair**



Dr. Mira Chitt

Head of Mechanical Engineering Department and Engineering Management
Associate Professor of Mechanical Engineering
Global College of Engineering and Technology (GCET)
Muscat, Oman

### **Panelists**



Prof. George Q. Huang
Chair Professor of Smart
Manufacturing
Department of Industrial and
Systems Engineering
The Hong Kong Polytechnic
University, Hung Hom,
Kowloon, Hong Kong



Dr. Jianxin (Roger) Jiao
Associate Professor of Enterprise
Systems Engineering
G,W. Woodruff School of
Mechanical Engineering
Georgia Institute of Technology,
Atlanta, USA



Dr. Alexandre Dolgui
Professor and Head
Automation, Production and
Computer Sciences Dept.
IMT Atlantique
NANTES Cedex 3, France
Editor-in-Chief, IJPR



Dr. Ali Siadat
Full Professor
Laboratoire de Conception,
Fabrication Commande
Arts et Métier Paris Tech
Centrede Metz
Metz, France

## **Meet the Editors Panel II**

4:00 - 5:30 pm, July 4, 2025

### **Panel Chair**



Dr. Laoucine Kerbache
Professor and Head of Engineering Management & Decision Sciences Division
College of Science and Engineering
Hamad Bin Khalifa University, Doha, Qatar

### **Panelists**



Alexandre Dolgui, Dr.habil., Ph.D.
Professor and Head
Automation, Production and Computer
Sciences Dept.
IMT Atlantique, LS2N-CNRS, NANTES
Cedex 3, France
Editor-in-Chief. IJPR



Dr. Ali Siadat
Full Professor
Laboratoire de Conception, Fabrication
Commande
Arts et Métier Paris Tech
Centrede Metz , France



**Dr. Roel Leus**Professor of Operations Research
KU Leuven
Leuven, Belgium

### Workshops

# Six Sigma Workshop

Thursday, July 3, 2025, 2:00 – 6:00 pm (Onsite Room 5)

Ahad Ali, Ph.D. Associate Professor

Director, Bachelor of Science in Industrial Engineering Director, Master of Science in Industrial Engineering Director, Graduate Certificate in Lean Six Sigma

Director, Smart Manufacturing and Lean Systems Research Group Coordinator, Siemens Electro-Matic Industrial Engineering Lab

A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering

Lawrence Technological University Southfield, Michigan, MI 48075, USA

Chief Executive Officer of IEOM Society International

Dr. Ahad Ali is an associate professor and director of industrial engineering programs (BSIE & MSIE) and director of a graduate certificate 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.

### Innovation and Entrepreneurship Workshop

Friday, July 4, 2024, 2:00 - 6:00 pm (Onsite Room 5)



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

**Professor Don Reimer** is the Chief Operating Officer of the IEOM Society International, Southfield, Michigan, USA. 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 Bachelor of Science degree 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 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 International. Professor Reimer is a faculty advisor of the Student Chapter of the IEOM Society at Lawrence Tech. He visited 17 countries to organize IEOM conferences. Professor Reimer is coordinating IEOM student chapters around the world.

### **Conference Committee**

#### **Conference Chairs**

Dr. Linda Zhang, Professor of Operations Management, IESEG School of Management, Paris la Defense

Dr. Ahad Ali, Associate Professor and Director of Industrial Engineering Program, Lawrence Technological University, Southfield, Michigan, USA

#### Program Chair

Professor Don Reimer, Chief Operating Officer, IEOM Society

#### **Organizing Committee**

Prof. Linda ZHANG, IESEG School of Management, Lille-Paris, France Prof. Farouk YALAOUI, University of Technology of Troyes, Troyes, France Prof. Surajit BAG, Excelia Business School, La Rochelle, France

### **Competition Committee**

Undergraduate Research Competition Chair

Dr. Adel Elomri, Associate Professor, College of Science and Engineering, Hamad Bin Khalifa University, Qatar

Global Design Competition Chair

Dr. Adel Elomri, Associate Professor, College of Science and Engineering, Hamad Bin Khalifa University, Qatar

Simulation Competition Chair

Dr Petri Helo, University Vaasa, Vaasa, Finland

Poster Competition Chair

Dr Petri Helo, University Vaasa, Vaasa, Finland

Graduate Student Paper Competition Chair

Dr. Pervaiz Akhtar, Chair Professor in Business Analytics, Big Data & Supply Chains and Director of MBA Programmes, University of Aberdeen,

Lean Six Sigma Competition Chair

Dr. Mohammad Shamsuzzaman, Professor of Industrial Engineering and Engineering Management, University of Sharjah, UAE

Senior Design Project Competition Chair

Dr. Pervaiz Akhtar, Chair Professor in Business Analytics, Big Data & Supply Chains and Director of MBA Programmes, University of Aberdeen,

Undergraduate Student Paper Competition Chair

Sagit Kedem-Yemini, Logistics Department, Sapir Academic College, Sderot, Israel

**Doctoral Dissertation Competition Chair** 

Dr. Surajit Bag, Full Professor at Excelia Business School, France

Master's Thesis Competition Chair

Dr. Surajit Bag, Full Professor at Excelia Business School, France

AI-ML Competition Chair

Dr. Hajej Zied, Associate Professor, University of Lorraine, Metz, France

Human Factors and Ergonomics Competition Chair

Dr. Hajej Zied, Associate Professor, University of Lorraine, Metz, France

High School STEM Competition Chair

Prof. Don Reimer, IEOM Society

Supply Chain and Logistics Competition Chair

Sri Thirumalai, Director, Last Mile Delivery, Walmart, USA (Online) Guoqing Zhang. University of Windsor, Canada (Onsite)

### **Program Committee**

Alexandra Tenera, FCT NOVA, Portugal Alfredo Soeiro, University of Porto, Portugal

Ali I. Al-Mosawi, Miskolic University, Hungary Ammar Oulamara, Université de Lorraine, Metz, Lorraine, France

Ana Barbosa-Póvoa, University of Lisboa, Portugal

Ana Luísa Ramos, University of Aveiro, Portugal Ana R. Xambre. University of Aveiro, Portugal

Ana S. Camanho, University of Porto, Portugal

Ana Sofia Matos, FCT NOVA, Portugal

André Carvalho, FCT NOVA, Portugal André Mendes de Carvalho, University of Minho, Portugal

Andrea D'Ariano, Università degli Studi Roma Tre, Roma, Italy Andrea Falegnami, Sapienza-University of Rome, Italy

Andreas Sterzing, Fraunhofer Institute for Machine Tools and Forming

Technology, Fraunhofer Institute, Chemnitz, Germany

Andy TC Wong, University of Strathclyde, Glasgow, UK Aneesh Zutshi, FCT NOVA, Portugal

Anouar Hallioui, Sidi Mohamed Ben Abdellah University, Fez, Morocco

António Grilo, FCT da Universidade Nova de Lisboa, Portugal Arunjoy Banerjee, Hochschule Rhein-Wall, Kleve, Germany

Aslı Çalış Boyacı, Ondokuz Mayıs University, Samsun, Turkey

Berna Dengiz, Baskent University, Baglica Campus, Ankara, Turkey

Boudouda Malik, University of Champagne-Ardenne, France

Cecilia Decesari, Alma Mater Studiorum University of Bologna, Bologna, Italy Christoph Szedlak, University of Applied Sciences Koblenz, Koblenz, Germany

Egon Mueller, Technische Universität Chemnitz, Chemnitz, Germany

Erwin Rauch, Free University of Bolzano, Bolzano, Italy

Fabio Frugiero, University of Basilicata, Italy

Faraj Bashir, The University of Sheffield International College, Sheffield, UK

Flora Ma Díaz-Pérez, University of La Laguna, Tenerife, Spain Francesco Costantino, Sapienza University of Rome, Italy

Francesco Simone, Sapienza University of Rome, Via Eudossiana, Rome, Italy

Francisco Reis, Polytechnic of Porto, Porto, Portugal
Frederik Desplentere, KU Leuven Bruges Campus, Bruges, Belgium

Funlade Sunmola, University of Hertfordshire, Hatfield, Hertfordshire, UK George Agyekum-Mensah, Coventry University Coventry, UK Gian Maria Santi, Alma Mater Studiorum University of Bologna, Bologna, Italy Giovanni Romagnoli, University of Parma, Italy

Giulio Di Gravio, Sapienza University of Rome, Italy Gündüz Ulusoy, Sabanci University, Istanbul, Turkey

Hafida Bouloiz, ENSA, Agadir, Morocco

Hakan Altunay, Suleyman Demirel University, Isparta, Turkey

Helena Carvalho, FCT NOVA, Portugal

Henk Zijm, Dutch Institute for Advanced Logistics, University of Twente,

Netherlands

Ihssen Abdelmomen, Université de Lorraine, Nancy, France

Imane Benkhati. Faculté des Sciences Semlalia Marrakech, Casablanca,

Iryna Shvets, Donetsk National Technical University, Pokrovsk, Ukraine

Jaouad Boukachour, University of Le Havre, France Jiri Tupa, University of West Bohemia, Czech Republic

João Basto, INESC TEC – Technology and Science, Porto, Portugal João Matias, University of Aveiro, Portugal

José Fernando Oliveira, University of Porto, Portugal Kannan Govindan, University of Southern Denmark, Denmark

Kondo H. Adjallah, ENIM, Lorraine-INP, University of Lorraine, France Leonardo Frizziero, Alma Mater Studiorum University of Bologna, Italy

Leonor Teixeira, University of Aveiro, Portugal Luis Ferreira, University of Coimbra, Portugal

M Khurshid Khan, University of Bradford, Bradford, West Yorkshire, UK

Mara Lombardi, Sapienza-University of Rome, Rome, Italy

Mario Fargnoli, Universitas Mercatorum, Rome, Italy

Marlene Brás, University of Aveiro, Aveiro, Portugal Massimo Guarascio, Sapienza-University of Rome, Italy

Matteo Mario Savino, University of Sannio, Benevento, Italy

Mehmet Kursat Oksuz, Istanbul Technical University, Turkey

Miguel Sanz Bobi, Comillas Pontifical University, Spain

Mouloud Denaï, University of Hertfordshire, Hatfield, Hertfordshire, UK

Murat Caner Testik, Hacettepe University, Turkey

Nacima Labadie, Université De Technologie De Troyes, Cedex, Aube, France

Nadjib Brahimi, Rennes School of Business, Cedex, France

Naila Fares, Universitat Politècnica de València, Spain

Nihal Erginel, Anadolu University, TURKEY Nnamdi Ogbuke, University of Central Lancashire, Preston, Lancashire, UK Nuno Costa, Polytechnic Institute- Setubal School of Technology, Portugal

Onur Dogan, İzmir Bakırçay University, Turkey

Oualid Jouini, CentraleSupélec, Université Paris-Saclay, Laboratoire Génie Industriel, France

P Sanjeevikumar, Dublin Institute of Technology, Ireland

Patrick Dallasega, Free University of Bozen-Bolzano, Bozen, Bolzano, Italy Patrick Pötters, University of Applied Sciences Koblenz, Germany Peter Toth, Obuda University, Hungary

R.M. Chandima Ratnayake, University of Stavanger, NORWAY

Rafiu Dimeji Seidu, London South Bank University, UK Ricardo Machado, University of Minho, Portugal Riccardo Patriarca, Sapienza University of Rome, Italy

Robert Valencia-Chapi, Universidad Politécnica de Madrid, Madrid, Spain

Roberto Panizzolo, University of Padova, Vicenza, Italy

Rogério Puga Leal, FCT NOVA, Portugal

Salvatore Miranda, University of Salerno, Italy Sam Aflaki, HEC Paris, JOUY-EN-JOSAS, Il de France, France

Sara SHAFIEE, Technical University of Denmark, Lyngby, Denmark

Silvia Colabianchi, Sapienza-University of Rome, Italy

Sofiene Dellagi, LGIPM, METZ, France

Stefano Scialla, Università Campus Bio-medico di Roma, Italy Stephen Disney, Cardiff Business School, Cardiff University, UK

Steve Martin, Coventry University, Coventry, West Midlands, United Kingdom

Susana Duarte, Universidade Nova de Lisboa, Portugal Susana Duarte, Universidade NOVA de Lisboa, Portugal Ufuk Cebeci, Istanbul Technical University, Macka, Turkey

Uwe Götze, Technische Universität Chemnitz, Chemnitz, Saxony, Germany

Vassilis Gerogiannis, Department of Project Management, Greece

Virgilio Cruz Machado, FCT NOVA, Portugal

Vladimir Modrak, TUKE, Slovakia

Wilfried Sihn, TU Wien - Institut für Managementwissenschaften, Bereich Betriebstechnik und Systemplanung and Fraunhofer Austria Research GmbH,

Yahaya Yusuf, Lancashire Business School, Lancashire, United Kingdom Yasmine Sabri, Politecnico di Milano, Italy

Yassine Ouazene, University of Technology of Troyes, France

Yevgen Zbykovskyy, Donetsk National Technical University, Pokrovsk, Ukraine Yiping Fang, CentraleSupélec, Bâtiment Bouygues - Laboratoire LGI, Cedex, France

### **Technical Committee**

ADNAN Ziaul Haq, North South University, Dhaka, Bangladesh AGARWAL Aayush, Meta Platforms Inc., USA AGBO Genesis Abah, IMT Atlantique Nantes, France ALDANONDO Michel, Ecole des Mine d'Albi, France AMODEO Lionel, University of Technology of Troyes, France BABOLI Armand, INSA Lyon, France BAG Surajit, Excelia Business School, France BAUMANN Philipp, University of Bern, Switzerland

BELAL H M, Liverpool Business School, LJMU, UK
BELER Cedrick, Institut National Polytechnique de Toulouse – Ecole Nationale

d'Ingénieurs de Tarbes, France BIAN Jason Junsong, Rennes School of Business, Rennes, France

BONJOUR Eric, ENSGSI - University of Lorraine, France

BOUTE Robert, KU Leuven, Belgium

BRUSSET Xavier, SKEMA Business School, France

CHAI Kah Hin, National University of Singapore, Singapore

CHARLES Aurélie, University of Lyon France, France

DAHANE Mohammed, Université de Lorraine, France

DI MARTINELLY Christine, IESEG School of Management, France

ELGAZZAR Mai, Egypt-Japan University of Science and Technology, Alexandria, Egypt

GARZA-REYES Jose Arturo, The University of Derby, UK

GENESTE Laurent, Institut National Polytechnique de Toulouse - Ecole

Nationale d'Ingénieurs de Tarbes, France

GHARBI Ali, ETS Montreal, Canada

GRABOT Bernard, Institut National Polytechnique de Toulouse – Ecole

Nationale d'Ingénieurs de Tarbes, France

GRUHIER Elise, Arts et Métiers ParisTech, France

GYULA Vastag, Széchenyi István University, Hungary HADJ HAMMOU Khaled, Institut National des Sciences Appliquées de Lyon,

France

HAMMAMI Ramzi, ESC Rennes School of Business, France

HASSAN Alaa, University of Lorraine, France

HELO Petri, University of Vaasa, Finland

HOMRI Lazhar, Arts et Métiers ParisTech, France

HVAM Lars, Technical University of Denmark, Denmark

HYON Emmanuel, Sorbonne Université - LIP6, France

IKKEN-BENALI Sonia, CESI LINEACT, France

ITTOO Ashwin, HEC Liege, Liege, Belgium

JACINTO FIOROTTO Diego, Unicamp, Brazil

JACOBSEN Peter, Technical University of Denmark, Denmark

KAMISSOKO Daouda, IMT Mines Albi, France

KERBACHE Laoucine, Hamad Bin Khalifa University, Doha, Qatar.

KERMAD Lyes, Université de Paris 8, France

KIM Byunghoon, Hanyang University, South Korea

KLEMENT Nathalie, Arts et Métiers ParisTech, France KUMAR Aalok, Institute of Management Visakhapatnam, India

KUMAR Arun, RMIT University, Australia KUMAR Vikas, University of the West England, UK KUTSCH Elmar, Cranfield University, UK

LAMOURI Samir, ENSAM Arts et Métiers ParisTech, France LEE Carman, Hong Kong Polytechnic University, Hong Kong LIANG Suzhen, Rennes School of Business, Rennes, France LIN Danping, Shanghai Maritime University, China

LV Chrity Yaqiong, Wuhan University of Technology, China MA Shuang, University of Science and Technology Beijing, China

MIFDAL Lahcen, Universiapolis Agadir, Morocco

MODGIL Sachin, IMI Kolkata, India

MOHAMED ALI Kammoun, Laboratoire de Génie Informatique, de Production et de Maintenance, France

MOHAMMADI Mehrdad, IMT Atlantique, France NAYAK Gautam Nandkishore, META, USA

NGUYEN Quy, Université de Technologie de Troyes, France OZKESER Banu, KOLUMAN Industry Automotive, Turkey

PILLET Maurice, Université de Savoie Mont Blanc, France POKHAREL Shaligram, Qatar University, Qatar

REGZ Nidhal, University of Lorraine, France

ROCCO Cleber Damião, University of Campinas - Unicamp, Brazil

SADOK Turki, University of Lorraine, France

Samuel BASSETTO, Ecole Polytechnique, Canada

SCHUTZ Jérémie, University of Lorraine, France

SHAFIEE Sara, Technical University of Denmark, Denmark

SOFIENE Dellagi, University of Lorraine, France

SOLANO CHARRIS Elyn, Universidad de La Sabana, Columbia SYED Abdurraheem Mushtaba, Cummins, USA

TAVARES DE AZEVEDO Anibal, State University of Campinas, Brazil

TCHANGANI Ayeley, Institut National Polytechnique de Toulouse - Ecole

Nationale d'Ingénieurs de Tarbes, France

THIRUMALAI Sridhar, Walmart, USA

TIWARI Sunil, University of Bristol Business School, UK TRAUTMANN Norbert, University of Bern, Switzerland

TUPA Jiri, University of West Bohemia, Czech Republic TÜTÜNCÜ Yazgı, Izmir University of Economics, Turkey

VILLENEUVE Eric, Ecole Supérieure des Technologies Industrielles

Avancées, France WANG Junqiang, Northwestern Polytechnic University, China

WANG Yue, Education University of Hong Kong, Hong Kong, China.

WU Yong, Griffith University, Australia

YAHIA Esma, Arts et Métiers ParisTech, France

YAN Bingwen, Cape Peninsula University of Technology, Cape Town, South

YUAN Yuan, Northwestern Polytechnical University, USA ZEMZAMI Maria, Mohammed V University, Morocco ZHANG Guoqing, University of Windsor, Windsor, Canada

ZHU Jiaxi, Google, USA

ZIED Hajej, University of Lorraine, Metz, France

ZOLGHADRI Marc, Ecole des Ingénieurs en Mécanique de Paris, France

# **Parallel Sessions**

Wednesday, July 2, 2025

				mooday, oan	, _,		
	Room A (Onsite)	Room 2 (Onsite)	Room 3 (Onsite)	Room 4 (Onsite)	Room 5 (Onsite)	Room 6 (Onsite)	Room 7 – Virtual
08:00 - 18:00	Registration						Supply Chain and Logistics
08:30 - 09:30		Artificial Intelligence and Data Science	Simulation, Optimization and Productivity Improvement	Supply Chain and Logistics	Case Studies and Best Practices	Faculty Job Interview	Competition Simulation Competition
09:30 - 10:00	Coffee Break						
10:00 - 10:20	Welcome Addresses – Dr. Robert Joliet, Academic Director of Programs, Associate Professor of Finance, IÉSEG School of Management, France Professor Don Reimer, Chief Operating Officer, IEOM Society – Room A Business Management and						
10:20 – 11:00	Keynote I: Dr. George Q. Huang, Chair Professor of Smart Manufacturing and Director of Research Institute for Advanced  Manufacturing, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong – Room A  Al-ML Competition						
11:00 – 11:40	Keynote II: Dr. Maged M. Dessouky, Dean's Professor of Industrial and Systems Engineering, and Department Chair, Daniel J. Epstein Department of Industrial and Systems Engineering, University of Southern California, Los Angeles, CA, USA – Room A Supply Chain Management						
11:40 – 12:20	Keynote III: Dr. Pervaiz Akhtar, PhD, MSc, MBA, BSc, PCAP & HE UK Senior Fellow, Chair Professor in Business Analytics, Big Data & Supply Chains and Director of MBA Programmes, University of Aberdeen, Aberdeen, UK – Room A						
12:20 – 13:00	Keynote IV: Bouchra LE HIR, Vice President Digital Transformation & Artificial Intelligence, Forvia Interiors, Paris, Île-de-France – Room A						
13:00 - 14:00	Lunch Break						
14:00 - 18:00	Poster Session (Size: A1 - 24 inches high x 36 inches wide, follow IEOM Poster Template', Please Bring Your Printed Poster)						
14:00 – 15:30		Women in Industry and Academia (WIIA) Panel	Business Management and Operations Management	Supply Chain and Logistics	Doctoral Competition Undergraduate Competition Global Design Competition Supply Chain and Logistics Competition	Faculty Job Interview	Lean Six Sigma Competition
15:30 - 16:00	Coffee Break						
16:00 – 18:00		Meet the Editors I	Quality, Reliability and Maintenance	Sustainability, Green Systems and Energy	Graduate Paper Competition High School STEM Competition	Faculty Job Interview	Competitions: UG Paper, UG Research MS Thesis Doctoral Dissertation Poster

### Thursday, July 3, 2025

	Room A (Onsite)	Room 2 (Onsite)	Room 3 (Onsite)	Room 4 (Onsite)	Room 5 (Onsite)	Room 6 (Onsite)	Room 7 - Virtual
08:00 - 18:00	Registration						
08:00 - 09:30		Business	Entrepreneurship	Sustainability,	Simulation, Optimization	Faculty Job	Human Factors
		Management and	and Innovation	Green Systems	and Productivity	Interview	and Ergonomics
		Operations		and Energy	Improvement		Competition
		Management					
9:40 - 10:20					University of Technology of To		
10:20 - 11:00		Keynote VI: Dr. Guoqing Zhang, Professor, Department of Mechanical, Automotive and Materials Engineering, Faculty of Engineering, University of Windsor, Canada					
11:00 - 11:40	Keynote VII: Dr. Petri	Keynote VII: Dr. Petri Helo, Professor of Industrial Management and Head of Networked Value Systems Research Group, School of Technology and Innovations,					
	University of Vaasa, Finland – Room A						
11:40 – 12:20	Keynote VIII: Dr. Min Xie, Chair Professor, Department of Systems Engineering and Chair Professor, Affiliate, Department of Data Science, City University of Hong Kong, PRC – Room A						
12:20 - 13:00	Keynote IX: Romain Bruniaux, Group Industrial VP & Power Division Industrial VP, Valeo, Paris, France – Room A						
13:00 - 14:00	Lunch Break - Room A (3rd floor)						
14:00 - 15:30		Global Supply	Engineering	Supply Chain and	Engineering Education		Artificial
		Chain and	Management and	Logistics	and Curriculum	Six Sigma	Intelligence and
		Logistics Panel	Project Management		Improvement	Workshop	Data Science
15:30 - 16:00	Coffee Break by						
16:00 – 18:00		PhD workshop by	Digital	Human Factors.	Al-ML Competition	Dr. Ahad Ali	Lean Six Sigma
16:00 - 16:00		Dr. Linda Zhang		Ergonomics and	sponsored by Daikin	Dr. Anad All	and Operations
		Dr. Liliua Zilalig	Manufacturing, Industry 4.0 and IoT	Healthcare	Applied		Excellence
		1	muusuy 7.0 anu io i	i icaitillaic	Applied	I	LACCHETICE

## Friday, July 4, 2025

	Room A (Onsite)	Room 2 (Onsite)	Room 3 (Onsite)	Room 4 (Onsite)	Room 5 (Onsite)	Room 6 (Onsite)	Room 7 - Virtual
08:00 - 18:00	Registration						
08:00 - 09:30		Case Studies and	Supply Chain and	Digital Manufacturing,	Faculty Job Interview	Plenary	Industry 4.0,
		Best Practices	Logistics	Industry 4.0 and IoT		Michel Eric YENE	Automation, IoT
			-			CEO, Valorys Trading	and Reliability
						Corp.	
						Paris, Île-de-France	
09:30 - 10:00	Break						
10:00 - 10:20	Remarks from Conference Chairs – Room A						
10:20 - 11:00	Keynote X: Dr. Jianxin (Roger) Jiao, Associate Professor of Enterprise Systems Engineering, G,W. Woodruff School of Mechanical Engineering, Georgia Institute of						
	Technology, Atlanta, GA, USA – Room A						
11:00 - 11:40	Keynote XI: Dr. Alexandre Dolgui, Professor and Head, Automation, Production and Computer Sciences Dept., IMT Atlantique, LS2N-CNRS, NANTES Cedex 3, France					Cedex 3, France	
	and Editor-in-Chief, International Journal of Production Research (IJPR) – Room A						
11:40 - 12:20	Keynote XII: Dr. Bingwen Yan, Professor, Head of Department, Department of Industrial & Systems Engineering, Cape Peninsula University of Technology, Cape Town,						
	South Africa – Room A						
12:20 - 13:00	Keynote XIII: Dr. Thierry Benoist, Founder and CEO of Hexaly, Paris, France – Room A						
13:00 - 14:00	Lunch Break						
14:00 - 15:30		Al in Manufacturing	Business	Manufacturing,	Supply Chain and	Entrepreneurship	BM and
		Panel	Management	Assembly and Design	Logistics	and Innovation	Operations
15:30 - 16:00							Management
16:00 - 18:00		Meet the Editors II	Sustainability, Green	Lean Six Sigma and	Engineering	by	Sustainability and
			Systems and Energy	Operations Excellence	Management and		Green Systems
					Project Management	Prof. Don Reimer	
19:00 - 22:00		Conference	Awards Dinner - I	Recognition of Awa	rdees and Compe	tition Winners	

### **Room Assignments**

PA00	Room A	Welcome Address, Opening and Keynotes
P122-123-124		Break Rooms (For Posters, Lunches, and Breaks)
P110		Secretariat
P111	Room 1	Session Room
P114	Room 6	Session Room
P115	Room 2	Session Room
P116	Room 3	Session Room
P125	Room 4	Session Room
P126	Room 5	Session Room
PA24	Room 7	Online Sessions Room

# July 2, 2025 (Wednesday)

July 2, 2025 (Wednesday) - Session: 8:30 - 9:30 am

8:30 - 9:30 am, WEDNESDAY, July 2

**Onsite Room 2** 

Session Chair: Tarık Küçükdeniz, Dept. Of Industrial Engineering, Istanbul University-Cerrahpaşa, Istanbul, Türkiye

### **Artificial Intelligence and Data Science**

ID 163 Enhancing Engineering Education Through the Integration of Biometric Systems: A Systematic Literature Review Thalente Nkosi, Lecturer, Department of Civil Engineering Midlands, Durban University of Technology, Pietermaritzburg, Midlands, SA

ID 171 Association Rules Learning for Predictive Maintenance in Industry Artificial Intelligence (AI)
Hsiao-Kang Lin and Tzu-Jou Liao, Department of Industrial Management, I-Shou University, Kaohsiung City 84001, Taiwan R.O.C

ID 241 Advanced Temporal Graph Models for Energy Commodity Price Predictions Shian-Chang Huang, National Changhua University of Education, Taiwan

ID 256 Responsible Al for Patient Care Transitions: Balancing Fairness and Efficiency

Manaf Zargoush and Somayeh Ghazalbash, Health Policy and Management, DeGroote School of Business, McMaster University, 1280 Main Street West., Hamilton, L8S 4L8, Canada

ID 259 Time-GPT and LLM-Based Methods for Enhanced Demand Forecasting in Retail: A Comparative Study

Tarık Küçükdeniz, Assoc. Professor, Dept. Of Industrial Engineering, Istanbul University-Cerrahpaşa, Istanbul, Türkiye Canan Hazal Akarsu, Asst. Prof., Dept. Of Corporate Data Management, Istanbul University-Cerrahpaşa, Istanbul, Türkiye Yeşim Altay, MSc Student, Dept. Of Industrial Engineering, Istanbul University-Cerrahpaşa, Istanbul, Türkiye

ID 270 Policies for Drone-Based Post-Disaster Assessment

Elvin Coban, Dept. Of Industrial Engineering, Ozyegin University, Istanbul, Türkiye

ID 273 Machine Learning-Based Prediction of Dynamic Braking Torques in Dry-Running Friction Systems - A Data-Driven Approach to Optimize Industrial Brake Systems

Stefan Altstetter, Chr. Mayr GmbH + Co. KG, Department of Research and Development (R&D), Mauerstetten, Germany Arne Bischofberger, Sascha Ott and Tobias Düser, Chief Engineer, Academic Director and Managing Director, Full Professor, IPEK Kit, Karlsruhe, Germany

### 8:30 - 9:30 am, WEDNESDAY, July 2

**Onsite Room 3** 

Session Chair: Ángel Sánchez-Fernández, CEMI Navantia-UDC, Universidade da Coruña, Batallones s/n, 15403 Ferrol, Spain

### Simulation, Optimization and Productivity Improvement

#### ID 172 Optimization of Thermal Performance in Different Perforated Pin Fins Using ANSYS

Md. Golam Kader, Arup Kumar Debnath and Md. Rokibul Hasan Jony, Department of Mechanical Engineering, Khulna University of Engineering and Technology, Khulna, Bangladesh

# ID 240 A Multi-Fidelity Simulation Optimization Framework Applied to the Pod Sequencing Problem in A Robotic Mobile Fulfillment System

Chun-Chih Chiu, Assistant Professor, Department of Business Management, National Taipei University of Technology, Taipei 106, Taiwan Wei-Ming Kuo, Master's student, Department of Industrial Engineering and Management, National Yunlin University of Science & Technology Yunlin 640, Taiwan

### ID 278 Improving Welding Job Scheduling in Shipbuilding with Optimization Algorithms

Ángel Sánchez-Fernández and Elena Denisa-Vlad, Researcher, CEMI Navantia-UDC, Universidade da Coruña, Batallones s/n, 15403 Ferrol, Spain Ana Ortega-Sarceda, Researcher, Universidade da Coruña, Campus Industrial de Ferrol, CITENI, Campus de Esteiro s/n, 15403 Ferrol, Spain Javier Pernas-Álvarez and Diego Crespo-Pereira, Professor, Business Department, Universidade da Coruña, Campus Industrial de Ferrol, CITENI, GII, Campus de Esteiro s/n, 15403 Ferrol, Spain

Adolfo Lamas-Rodríguez, Belén Sañudo-Costoya, Santiago Tutor Roca, Navantia S.A, S.M.E, Taxonera 11, 15403 Ferrol, Spain

# ID 283 Optimizing Energy-Intensive Heating Processes in Manufacturing Using Bayesian Belief Networks: A Case Study in Thermoforming

Iman Jalilvand, Niloofar Akbarian-Saravi, Bryn Crawford and Abbas S. Milani, Materials and Manufacturing Research Institute, School of Engineering, The University of British Columbia, Kelowna, BC, Canada

Bhushan Gopaluni, Data Analytics and Intelligent Systems (DAIS) Lab, Department of Chemical and Biological Engineering, University of British Columbia, Vancouver, Canada

# ID 310 A Comprehensive Approach to Enhancing Master Production Scheduling Strategies in Cable Manufacturing Through Improved Forecasting Methods and Process Optimization

Yanina Lujan Guillen Gomez, Industrial Engineering, Taiwan-Paraguay Polytechnic University, Paraguay

Industrial Management, National Taiwan University of Science of Technology, Taiwan

Cecilia María Angélica Jara Baez, Industrial Engineering, Taiwan-Paraguay Polytechnic University, Paraguay

Industrial Management, National Taiwan University of Science of Technology, Taiwan

Yueh-Ling Chen, Industrial Engineering, Taiwan-Paraguay Polytechnic University, Paraguay

Industrial Management, National Taiwan University of Science of Technology, Taiwan

Shih-Hsien Tseng, National Taiwan University of Science and Technology, Taiwan

#### ID 337 Productivity Analysis and Improvement Plan in Multi-Shift Fabrication Operations

Akashkumar Dineshkumar Mishra, Student of Master of Technology, Production Engineering, Department of Mechanical Engineering, Managalayatan University, Aligarh, Uttar Pradesh, India

Shweta Bhardwaj, Asst Professor, Mechanical Engineering, Department of Mechanical Engineering, Managalayatan University, Aligarh, Uttar Pradesh. India

### 8:30 - 9:30 am, WEDNESDAY, July 2

**Onsite Room 4** 

Session Chair: Bingwen Yan, Cape Peninsula University of Technology, Cape Town, South Africa

### **Supply Chain and Logistics**

### ID 358 Towards Resilient Supply Chain Practices: The Role of Digital Supply Chain Technologies

Abeeku Sam Edu, University of Ghana Business School, Ghana

### ID 361 Electric Vehicle Routing with Synchronized Mobile Charging Stations: Bi-Level vs. Joint Optimization Approaches

Ihsan Sadati and Bülent Çatay, Sabanci University, Faculty of Engineering and Natural Sciences, Istanbul, Turkey Smart Mobility and Logistics Lab, Sabanci University, Istanbul, Turkey

#### ID 362 The Role of ISO 9001 in Improving Service Quality at Sobraga's Logistics Department

Bingwen Yan and Axel Henrick Nze Ayong, Cape Peninsula University of Technology, Cape Town, South Africa

#### ID 367 Towards a Sustainable Transport Sector: Assessing the Role of Green Hydrogen

Zied Hajej and Sofiene Dellagi, Université de Lorraine, LGIPM, Metz 57073, France

Thamer Aldoughaish, Département de soutien à la recherche et à l'ingénierie, Riyad, Arabie-Saoudite

Ayoub Tighazoui, ICUBE Laboratory CNRS 7357/Département mécanique, University of Strasbourg, Strasbourg, France

#### ID 396 Tensions in Going Green: Navigating the Environmental Gap and Power Imbalance in the LSP-Shipper Interface

S.M. Mehdi Jourabchi, Assistant Professor of Operations and Supply Chain Management, Dhillon School of Business, University of Lethbridge (Calgary Campus), Calgary, Canada

D. Marc Kilgour, Professor of Mathematics, Department of Mathematics, Wilfrid Laurier University, Waterloo, Canada

Michael Haughton, Professor and CN Fellow in Supply Chain Management, Lazaridis School of Business and Economics, Wilfrid Laurier University Waterloo, Canada

# ID 406 Multi-Period Integrated Procurement and Production Problem for Perishable Products – An Extension of Traveling Purchaser Problem with Integrated Production and Distribution Systems

Somu Gorai, Assistant Professor, Operations and Supply Chain Management, Indian Institute of Management Jammu, Jammu, India Bodhibrata Nag, Full Professor, Operations Management, Indian Institute of Management Calcutta, Kolkata, India

### 8:30 - 9:30 am, WEDNESDAY, July 2

**Onsite Room 5** 

Session Chair: Anup Pradhan, University of Johannesburg, South Africa

### **Case Studies and Best Practices**

# ID 313 Applying the Elaboration Likelihood Model to Investigate Customer Behavioral Intention: The Case of Agarwood on Social Media Platforms

Hui-Ling Huang, Department of Business Administration, Chang-Jung Christian University, Tainan City, Taiwan Yue-Yang Chen, Department of Digital Media Design, Tzu-Hui Institute of Technology, Taiwan

Department of Business Administration, I-Shou University, Taiwan, Kaohsiung, Taiwan Yu-Jyun Huang, Marketing specialists, W&W Trading and Consulting, UK

Nhat Nam Luong, Graduate Program in the Department of Business Administration, I-Shou University, Kaohsiung City, Taiwan

### ID 314 A Case Study of Operational Strategy of a Cocoa Processing Company by Employing the Business Model Canvas

Yue-Yang Chen, Department of Digital Media Design, Tzu-Hui Institute of Technology, Pingtung, Taiwan

Department of Business Administration, I-Shou University, Taiwan, Kaohsiung, Taiwan

Lan-Chien Huang, Department of Early Childhood Educare, Tzu-Hui Institute of Technology, Pingtung, Taiwan

Hui-Ling Huang, Department of Business Administration, Chang-Jung Christian University, Tainan City, Taiwan

Senh-Quay Nim, Graduate Program in the Department of Business Administration, I-Shou University, Kaohsiung, Taiwan

### **Business Management and Operations Management**

# ID 364 Life Cycle Cost Analysis of Hydrogen Vehicle Considering the Economic Effects of Carbon Emission Reduction and the Optimal Maintenance of Fuel Cell: A Case of Forklift

Deok-Joo Lee and Junhyung Kim, Department of Industrial Engineering, Seoul National University, Seoul, Republic of Korea Seokhwan Hong, Hyundai Motor Company, Seoul, Republic of Korea

# ID 371 Driving Factors for The Application of Quality Management (QM) on Product and Service Delivery in South African Manufacturing Industry

Festus Uche Uwadia, Emmanuel Innocents Edoun, Anup Pradhan and Charles Mbohwa, Faculty of Engineering and Built Environment, Department of Quality & Operation Management, University of Johannesburg, South Africa, 55 Beit St, Doornfontein, Johannesburg, South Africa

8:30 - 9:30 am, WEDNESDAY, July 2

**Onsite Room 6** 

### **Faculty Job Interview**

8:00 - 10:00 am, WEDNESDAY, July 2

**Zoom Room 7** 

Online Session Chairs: Sri Thirumalai, Director, Last Mile Delivery, Walmart, USA and Dr. Mizanur Rahman, IEOM Australia Onsite Session Chair: Dr. Guoqing Zhang, Dept. of Mechanical, Automotive and Materials Engineering, University of Windsor, Canada

### Supply Chain and Logistics Competition sponsored by aThingz

### ID 369 Building Resilient and Sustainable Supply Chains: Impact on Organizational Social Performance

Muhammad Asher Ud Din Qazi, Muhammad Sohaib Zafar and Tahir Khan, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan

Amjad Hussain, Professor, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan

Muhammad Adeel Munir, Lecturer, Department of Mechanical Engineering, University of Engineering and Technology, Kala Shah Kaku Campus Lahore, Pakistan

Ibrahim Ahmed, Abdullah Arshad, Khubaib Saeed and Muhammad Fasih Iqbal, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan

# ID 397 Improvement Model to Reduce Picking Errors and Increase Service Level Through Organizational and Logistical Control Tools in a Pharmaceutical Firm

Sheyla Carina Chávez Chiuyari, From the Faculty of Engineering, student of the Industrial Engineering program, Universidad de Lima, Santiago de Surco. Lima. Perú

Richard Meza Ortiz, Faculty of Industrial Engineering, Professor, School of Industrial Engineering, Member, Operation Management and Green Logistics Research Group, Universidad de Lima, Santiago de Surco, Lima, Perú

#### ID 410 Building Robust Food Supply Chains through Routing Optimization: A Case Study of KDD in Kuwait

Fay Yousef AlMaatouq, Fouz Fawaz Jassim Alshehab, Yasmeen Khaled Mohammad AlMuhaini and Alperen Bal, College of Engineering and Technology, American University of the Middle East, Kuwait

# ID 429 Warehouse Optimization for Sustainability: A Case of a Company Supplying Renewable Energy Components Mfundo Nkosi and Yonatan Glassman, University of Johannesburg, South Africa

### ID 444 Tech for Trust: Leveraging IoT, Al, and Blockchain to Reduce Waste and Improve Supply Chain Integrity

Sameer Misbah, Senior Software Engineer | Phd Researcher, Fast NUCES, Karachi, Pakistan Muhammad Farrukh Shahid, National University of Computer & Emerging Sciences, Pakistan Shahbaz Siddiqui, Assistant Professor, Fast NUCES, Karachi, Pakistan

### **Simulation Competition**

Session Chair: Dr. Petri Helo, University of Vaasa, Finland

#### ID 254 Utilizing Tecnomatix PLM by Siemens to Design Manufacturing Facilities

Ghadeer AlQattan, Student, American College of the Middle East, Eqaila, Kuwait

Imad Amine, Head of Industrial Engineering Technology Program, American College of the Middle East, Eqaila, Kuwait

### ID 366 Manufacturing Process Optimization via an Ergo Green Lean Framework for Enhanced Sustainability

Abdullah Arshad, Ibrahim Ahmad, Khubaib Saeed and Muhammad Fasih Iqbal, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan

Amjad Hussain, Professor, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan Amjad Mehmood, Director Operations, Technology and Management Integratix, Lahore, Pakistan

Muhammad Asher Ud Din Qazi, Tahir Khan and Muhammad Sohaib Zafar, Department of Mechanical Engineering, University of Engineering and Technology, Lahore, Pakistan

#### ID 411 Optimum Shelter Location Problem Using Predicted Injuries

Sule Nur Sargın, Department of Industrial Engineering, Istanbul Medeniyet University, Istanbul, 34700, Turkey Ebru Angün, Department of Industrial Engineering, Galatasaray University, Istanbul, 34349, Turkey

### July 2, 2025 (Wednesday) - Session: 10:00 am - 1:00 pm - Onsite Room A

### **Keynote Speakers**

Welcome Address from the Host University: Wednesday, July 2, 2025, 10:00 – 10:20 am

### Dr. Robert Joliet

Academic Director of Programs
Associate Professor of Finance
IÉSEG School of Management, France

Opening Keynote: Wednesday, July 2, 2025, 10:20 - 11:00 am

### Prof. George Q. Huang

Chair Professor of Smart Manufacturing
Director of Research Institute for Advanced Manufacturing
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

Keynote II: Wednesday, July 2, 2025, 11:00 – 11:40 am

### Dr. Maged M. Dessouky

Dean's Professor of Industrial and Systems Engineering
Professor of Industrial and Systems Engineering and Spatial Sciences Institute
Department Chair, Daniel J. Epstein Department of Industrial and Systems Engineering
USC Viterbi School of Engineering
University of Southern California
Los Angles, California, USA

Keynote III: Wednesday, July 2, 2025, 11:40 am - 12:20 pm

**Dr. Pervaiz Akhtar,** PhD, MSc, MBA, BSc, PCAP & HE UK Senior Fellow Chair Professor in Business Analytics, Big Data & Supply Chains and Director of MBA Programmes

University of Aberdeen, Aberdeen, UK

Keynote IV: Wednesday, July 2, 2025, 12:20 – 1:00 pm

### **Bouchra LE HIR**

Vice President Digital Transformation & Artificial Intelligence Forvia Interiors Paris, Île-de-France, France

1:00 pm - Buffet Lunch

10:00 - 12:00 am, WEDNESDAY, July 2

Zoom Room 7

Session Chair: Dr. Mizanur Rahman, IEOM Australia

### **Business Management and Operations Management**

ID 261 Bibliometric analysis of barriers to telework in industrial companies
Sirine Bouaziz, PhD student, Higher Institute of Industrial Management of Sfax, Tunisia
Dorra Kallel, Higher Institute of Industrial Management of Sfax, Tunisia
Noura Beji, Higher Institute of Industrial Management of Sfax, Tunisia
Diala Dhouib, Higher Institute of Industrial Management of Sfax, Tunisia

- ID 231 Optimizing Assembly Line Balancing with Heterogeneous Learning: A MILP Approach for Task and Worker Assignment Zakaria Zine El Abidine, Imre Dimény and Tamás Koltai, Department of Management and Business Economics, Budapest University of Technology and Economics, H-1521, Budapest, P.O.B. 91, Hungary
- ID 232 Minimizing Makespan in Simple Assembly Lines: A MILP Approach Considering Learning and Fatigue Effects
  Zakaria Zine El Abidine and Tamás Koltai, Department of Management and Business Economics, Budapest University of Technology and
  Economics, H-1521, Budapest, P.O.B. 91, Hungary
- ID 336 The Algorithmic Vanguard Unleashed: How Digital-Augmented Agility Rewrites Organizational Intelligence Raul Ionuţ RITI, PhD student, Technical University of Cluj-Napoca, Cluj, Romania Claudiu ABRUDAN, Technical University of Cluj-Napoca, Cluj, Romania Laura BACALI, Technical University of Cluj-Napoca, Cluj, Romania Nicolae BÂLC, Technical University of Cluj-Napoca, Cluj, Romania
- ID 338 The Influence of Servant Leadership on Psychological Safety in Government Organizations: A Quantitative Study from Oman Tamim al Busaidi, PhD Student, Head of Receiving Department in Diwan of Royal court, Sultanate of Oman, Muscat, Oman Ali al Kalbani, Lecturer, College of Economics and Business Administration, University of Technology and Applied Sciences, Al-Musannah, Oman
- ID 339 Psychological Safety as a Mediator Between Leadership Style and Knowledge Sharing Behavior: Evidence from the Public Sector

Tamim al Busaidi, PhD Student, Head of Receiving Department in Diwan of Royal court, Sultanate of Oman, Muscat, Oman Ali al Kalbani, Lecturer, College of Economics and Business Administration, University of Technology and Applied Sciences, Al-Musannah, Oman

### **AI-ML** Competition

Session Chair: Dr. Hajej Zied, Associate Professor, University of Lorraine, Metz, France

- ID 409 Simultaneous Reduction of False Positives and Negatives in Strawberry Quality Control via YOLO Computer Vision
  Mariam Almutairi, Sundos Alazemi, Fatima Saleh, Latifah Aljeaan, Manal AL-mutairi, and Takeaki Toma, College of Engineering and Technology
  Faculty of Industrial Engineering American University of the Middle East Egaila, Kuwait
- ID 468 Al-enabled Human Behavior Dynamics in Sociotechnical Manufacturing Systems: A Multimodal Ensemble Transformer Mulang Song and Roger J. Jiao, School of Industrial and Systems Engineering, Georgia Institute of Technology, USA

### **Supply Chain Management**

- ID 216 Effect of Corporate Allegations: Do Supply Chain Partners Face Spillover Effects?

  Lalbabu Nishad, Operations Management, Indian Institute of Management Udaipur, Udaipur, Rajasthan, India
- ID 441 Impact of Emerging Industry 4.0 Technologies on Supply Chain Management: Advantages, Challenges, and Future Research
  Jeet Gor, Department of Computer Science Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, India
  M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School Of Technology, Pandit Deendayal Energy University, Gandhinagar,
  India

#### ID 223 A Process-Based Cost Estimation Model for Metal Spare Parts Production Using Additive Manufacturing

Muhammad Fahad Sheikh, Majed Hadid and Regina Padmanabhan, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation, Doha, Qatar

Fatima Al Abtah and Marwan Khraisheh, Mechanical Engineering Program, Texas A&M University at Qatar, Doha 23874, Qatar

College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation, Doha, Qatar

Adel Elomri and Laoucine Kerbache, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation, Doha, Qatar

## 2:00 - 6:00 pm - Poster Session

Please bring a printed poster (A1 size: 24 inches high x 36 inches wide).

Poster Competition Chair: Dr. Petri Helo, University of Vaasa, Finland

ID 168 A resilient ecosystem model to support targeted prevention plans for Occupational Safety and Health: The PMP 5.0 project Gaia Vitrano, Politecnico di Milano, Italy

#### ID 175 The Limits of Lean Production Systems for Reverse Logistics Integration

M. Eng. Christoph Müller and Prof. Dr. Markus Schneider, Technology Center for Production and Logistics Systems (TZ PULS), Landshut University of Applied Sciences, Landshut, Germany

# ID 214 Analysis of Deterministic and Stochastic Algorithms to Find the Shortest Path in the Drilling Process in a CNC Machine as a Function of the Number of Holes

Juan Fleitas Marusic and Nicolas Huaman Blas, Ricardo Palma's Student, Industrial Engineering, School of Engineering, Lima, Peru Manuel López Miranda, Engineer, Master in Science in Industrial Engineering, School of Engineering, Lima, Peru

ID 242 The Channel Model Selection of Home Country Manufacturers Entering the Host Country Market in The Context of Joint Venture Huang Zuqing, Liu Jiaao, Duan Housheng and Huang Xiaoling, School of Management, Guangzhou University, Guangzhou 510006, China

#### ID 246 Impact of Work Hardening on the Surface Anisotropy and mechanical properties of a Low-Alloy Steel

Mounira Bourebia, Soumaya Meddah, Sihem Achour, Khadidja Bouhamla, Amel Oulabbas, Walid. Ghennai, Ahlem Taleb, Salah Remili and Abdeljalil Haddad, Research Center in Industrial Technologies CRTI, Annaba, Algeria Lakhdar Laouar, Industrial mechanics laboratory, Badji Mokhtar University, Annaba, Algeria

#### ID 253 A System Dynamics Model for Evaluating WEEE in Hong Kong

Po Tung NG, K. L. KEUNG and CKM Lee, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hung Hom, Hong Kong SAR, China

### ID 316 Platform Bias and Private Label Power: Interactions in Dual-Product Online Retail

Raziyeh Reza-Gharehbagh, Dept. of Supply Chain and Management Digital, EM Normandie Business School, Le Havre, France

### July 2, 2025 (Wednesday) - Session: 2:00 - 3:45 pm

### 2:00 - 3:30 pm, WEDNESDAY, July 2

**Onsite Room 2** 

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

Panel Co-Chairs

Sagit Kedem-Yemini Logistics Department Sapir Academic College Sderot, Israel

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

Panel Speaker I

Dr. Luz María Valdez de la Rosa, Ph.D. Profesora del Departamento de Ingeniería Civil y Gestión Escuela de Ingeniería y Tecnologías Universidad de Monterrey Monterrey, NL, Mexico

Panel Speaker II

Dr. Xuan (Jen) Zhao Professor in Operations and Decision Sciences Lazaridis School of Business and Economics Wilfrid Laurier University Waterloo, Ontario, Canada

Panel Speaker III

Dr. Zhe Yuan Associate Professor EMLV Business School Paris, France

Panel Speaker IV

Dr Carman Ka Man Associate professor Department of Industrial and Systems Engineering The Hong Kong Polytechnic University Hong Kong, PRC

### 2:00 - 3:30 pm, WEDNESDAY, July 2

**Onsite Room 3** 

Session Chair: Sudhakar Deshmukh, Kellogg School of Management, Northwestern University, Evanston, IL, United States

### **Business Management and Operations Management**

#### ID 165 The Adoption of Digital Technology in South African Mines

Leago Sathekge, Department of Engineering and Technology Management, Faculty of Engineering and the Built Environment, University of Pretoria, Pretoria, South Africa

Hannelie Nel, Associate Professor in Engineering Management, Department of Engineering and Technology Management, Faculty of Engineering and the Built Environment, University of Pretoria, Pretoria, South Africa

Marthinus du Plessis, Researcher and Innovation Consultant, Department of Engineering and Technology Management, Faculty of Engineering and the Built Environment, University of Pretoria, Pretoria, South Africa

# ID 176 Impact of Market Heterogeneity on Retailers' Competition for Quality of Services, Price and Location in a Duopoly Saman Asvadi, PhD Student, Dept. Of Supply Chain and Business Tech. Management, Concordia University, Montreal, Canada Satvaveer S Chauhan, Dept. Of Supply Chain and Business Tech. Management, Concordia University, Montreal, Canada

#### ID 180 An optimization model for periodic maintenance of industrial equipment with uninterrupted operation

Cleber Damião Rocco, Associate professor, University of Campinas – Unicamp, School of Applied Sciences, Limeira, SP, Brazil Gabriel Adam Bilato, Doctorate candidate, University of Campinas – Unicamp, School of Applied Sciences, Limeira, SP, Brazil Renan Alves do Nascimento, M.Sc. in engineering, University of Campinas – Unicamp, School of Applied Sciences, Limeira, SP, Brazil

### ID 191 Developing the Fuzzy Performance Evaluation Matrix for E-learning System

Chun-Min Yu and Yu-Ling Chen, Department of Industrial Engineering and Management, National Chin-Yi University of Technology, Taichung 411030, Taiwan

Yen-Po Chen, School of Philosophy, Psychology and Language Sciences, The University of Edinburgh, Edinburgh EH8 9YL, UK Wen-Yang Kao, Office of Physical Education, National Chin-Yi University of Technology, Taichung 411030, Taiwan Lujia Yang, Cardiff Business School, Cardiff University, Cardiff CF10 3AT, UK

Hsuan-Yu Chen, Department of Industrial Engineering and Management, National Yang Ming Chiao Tung University, Hsinchu 300093, Taiwan

#### ID 221 Proposing A Framework for Smart Product-Service System Design Evaluation

Safa Azimi, PhD Candidate, Department of Industrial Engineering, Eastern Mediterranean University, Famagusta, Northen Cyprus Béla Vizvári, Full Professor of Industrial Engineering, Eastern Mediterranean University, Famagusta, Northen Cyprus

### ID 226 An Investigation of the Sustainability Agenda - or Lack of Same - in Supply Chain Transformation Programs

Linda Englyst, Assistant Professor of Operations Management, Department of Business Development and Technology, Aarhus BSS – Aarhus University, Herning, Denmark

### ID 245 Management of Processing Systems: A Framework for Operations Management

Sudhakar Deshmukh, Kellogg School of Management, Northwestern University, Evanston, IL, United States

### 2:00 - 3:30 pm, WEDNESDAY, July 2

**Onsite Room 4** 

Session Chair: Meilinda Maghfiroh, Faculty of Transport and Logistics, Muscat University, Muscat, Oman

### **Supply Chain and Logistics**

# ID 156 A Blockchain-Integrated MCDM Framework for Dental Supplier Selection: Enhancing Transparency and Decision-Making Efficiency

Fatemen Hamta Safarian, Doctor of Dental Surgery (DDS), School of Dentistry, Tehran Azad University, Tehran, Iran

Meysam Shaverdi, PhD in Supply Chain & Logistics, School of Accounting, Information Systems and Supply Chain, RMIT University, Melbourne, Victoria, Australia

# ID 157 Leveraging Blockchain Technology for Policymaking and Coordination in National and Global Supply Chains: An MCDM Approach

Meysam Shaverdi, PhD in Supply Chain & Logistics, School of Accounting, Information Systems and Supply Chain, RMIT University, Melbourne, Victoria, Australia

MohammadHossein Shaverdi, School of Law and Political Sciences, Allameh Tababei University, Tehran, Iran

# ID 158 Critical Success Factors for Supply Chain Practices in Oman's O&G Sector: An Approach Through Advanced Technologies and Circular Economy

Jacob Pratabaraj, Faculty of Transport and Logistics, Muscat University, Muscat, Sultanate of Oman, Oman Maryam Rahman, Faculty of Transport and Logistics, Muscat University, Muscat, Sultanate of Oman, Oman

Meilinda Maghfiroh, Faculty of Transport and Logistics, Muscat University, Muscat, Sultanate of Oman, Oman

Ahmed Maher Mohammed, Department of Management, Birmingham Business School, University of Birmingham, Dubai International Academic City, Dubai, P.O. Box 341799, United Arab Emirates

### ID 174 Artificial Intelligence as a Driver for Supply Chain Financial Performance: A Review and Conceptual Framework

Lubna Al Jabri and Nasir Zubairu, Faculty of Transport & Logistics, Muscat University, Muscat, Oman

#### ID 194 Managing Returns by Selling and Pricing Strategies with Online Product Reviews

Miao Sun, Assistant Professor, Institute of Western China Economic Research, Southwestern University of Finance and Economics, China Jing Chen, Full Professor of Operations Management, Department of Management Science and Information System, Faculty of Management, Dalhousie University, Halifax, Canada

### 2:00 - 3:30 pm, WEDNESDAY, July 2

**Onsite Room 5** 

Session Chair: Dr. Surajit Bag, Full Professor at Excelia Business School, France

### **Doctoral Dissertation Competition sponsored by Airbus**

#### ID 225 Balancing Operating Room Utilization Through Volatility-stratified Surgical Portfolios

Lauri Saarinen and Chao Pan, Department of Industrial Engineering and Management, School of Science, Aalto University, Espoo 02150, Finland Erik Demeulemeester, Professor, Research Centre for Operations Management, Faculty of Economics and Business, KU Leuven, Leuven, Belgium

### ID 431 Behavioral Retail Operations to Incentivize Customers

Nymisha Bandi, McGill University, Canada

### **Undergraduate Student Paper Competition sponsored by Siemens**

Session Chair: Dr. Pervaiz Akhtar, University of Aberdeen, Aberdeen, UK

#### ID 159 Method for Developing a Digital Transformation Maturity Model for the Manufacturing Industry

Andrea Cantú, Ana Fernanda Salinas, Valeria Contreras and Ayesha De Anda, Alumni of Engineering Management Bch.D, University of Monterrey Nuevo León. México

Luz María Valdez-de la Rosa, Associate Professor, Department of Civil Engineering & Engineering Management, University of Monterrey, Nuevo León. México

### Supply Chain and Logistics Competition sponsored by aThingz

Session Chair: Dr. Guoqing Zhang, Department of Mechanical, Automotive and Materials Engineering, University of Windsor, Canada

### ID 356 Multi-effects strategic decisions in the context of supply chain resilience for the maritime port system

Fabricio Moreno-Baca, Department of Logistic and Supply Chain Management, Universidad Popular Autónoma del Estado de Puebla (UPAEP), México

Center Leo Apostel, Vrije Universiteit Brussel, Belgium

Patricia Cano-Olivos, Diana Sánchez-Partida and José-Luis Martínez-Flores, Department of Logistic and Supply Chain Management, Universidad Popular Autónoma del Estado de Puebla (UPAEP), México

2:00 - 3:30 pm, WEDNESDAY, July 2

**Onsite Room 6** 

### **Faculty Job Interview**

2:00 - 3:30 pm, WEDNESDAY, July 2

Zoom Room 7

Session Chair: Dr. Mohammad Shamsuzzaman, Prof. of Industrial Engineering and Engineering Management, University of Sharjah, UAE and Dr. Nazrul Islam, IEOM Canada

### **Lean Six Sigma Competition**

# ID 304 Minimizing Turn Over Time for Rental Unit Availability: Implementing Six Sigma DMAIC Methodologies Aashana Bhosle, CSUN, United States

# ID 331 Improving the Rate of Patient No Show to The Klotz Student Health Center at California State University Northridge Christopher Villalpando, Lina Gurgenian, Charity Custance, and Sipedeh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge, California, United States

# ID 347 Improving the Rate of Patient No Show to The Klotz Student Health Center at California State Northridge Christopher Villalpando, Lina Gurgenian, Charity Custance, and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge, California, United States

### ID 351 Minimizing Turnover Time for Rental Unit availability Using Lean Six Sigma DMAIC Methodology

Aashana Kamlesh Bhosale, Hrutwik Dynaneshwar Tambe, Subhojeet Das, and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge 91330, California, USA

### Global Design Competition

Session Chair: Dr. Adel Elomri, Associate Professor, College of Science and Engineering, Hamad Bin Khalifa University, Qatar

# ID 365 Cohesive Governance: A Process-Based Approach for Corporate Design and Subsidiary Success based on Efficient Value Creation

Mahdi Bastan, Graduate School of Management and Economics, Sharif University of Technology, Tehran, Iran Deputy of Strategic Development, Golrang Industrial Group, Tehran, Iran Yousef Asgari, Zarifeh Shahrashoob and Bita Elahifar, Deputy of Strategic Development, Golrang Industrial Group, Tehran, Iran Mahla Sadat Rezaei, Faculty of Commerce and Trade, College of Management, University of Tehran, Tehran, Iran

### Senior Design Competition / FYP Competition

Session Chair: Dr. Pervaiz Akhtar, University of Aberdeen, Aberdeen, UK

### ID 403 Managing the Electronic Waste of Kuwait by Industrial Symbiosis and Reduce-Reuse-Recycle (3R) Applications

Ozgur Uysal, Assistant Professor, College of Engineering and Technology, American University of the Middle East, Kuwait Hessa Alraqum, Reema Almutairi, Sara Almansouri, Sarah Ali and Shahad Mandi, BS Students of Industrial Engineering, American University of the Middle East, Kuwait

### Sustainability, Green Systems and Energy

### ID 222 Sensitivity Analysis of a Metal Hydride Reactor Utilizing LaNi4.8Sn0.2 Metal Hydride

Douw G Faurie, Kasturie Premlall and Andrei Kolesnikov, Department of Chemical Metallurgical and Materials Engineering, Tshwane University of Technology, Pretoria, Republic of South Africa

Mykhaylo Lototskyy, HySA Systems, South African Institute for Advanced Materials Chemistry, University of the Western Cape, Cape Town, Republic of South Africa

### July 2, 2025 (Wednesday) - Session: 4:00 - 6:00 pm

4:00 - 6:00 pm, WEDNESDAY, July 2

**Onsite Room 2** 

### Meet the Editors I

Co-Chairs: Dr Carman Ka Man and Dr. Laoucine Kerbache

Dr. Jianxin (Roger) Jiao Associate Professor of Enterprise Systems Engineering G, W. Woodruff School of Mechanical Engineering Georgia Institute of Technology, Atlanta, GA, USA

Prof. George Q. Huang
Chair Professor of Smart Manufacturing
Director of Research Institute for Advanced Manufacturing
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

Dr. Maged M. Dessouky
Dean's Professor of Industrial and Systems Engineering
Professor of Industrial and Systems Engineering and Spatial Sciences Institute
Department Chair, Daniel J. Epstein Department of Industrial and Systems Engineering
USC Viterbi School of Engineering
University of Southern California, Los Angles, California, USA

Dr. Min Xie

Chair Professor, Department of Systems Engineering and Chair Professor, Affiliate, Department of Data Science

City University of Hong Kong

Tat Chee Avenue, Kowloon, Hong Kong, PRC

Fellow of IEEE (2006), Elected Member of Int Statistical Institute (2010)

Member of European Academy of Sciences and Arts (2022)

Asian Region VP of Inst of Industrial and Systems Engineers (2022-2024)

Dr Carman Ka Man Associate professor

Department of Industrial and Systems Engineering

The Hong Kong Polytechnic University, Hong Kong, PRC

Dr. Laoucine Kerbache Professor Head of Engineering Management & Decision Sciences Division College of Science and Engineering

### 4:00 - 6:00 pm, WEDNESDAY, July 2

Hamad Bin Khalifa University, Doha, Qatar

**Onsite Room 3** 

Session Chair: Indra Gunawan, Adelade Business School, The University of Adelaide, Adelaide, Australia

### Quality, Reliability and Maintenance

#### ID 161 Evaluation of Multistage Interconnection Networks Reliability using Monte Carlo Method

Indra Gunawan, Adelade Business School, The University of Adelaide, Adelaide, Australia

### ID 192 A multi-measurement points evaluation and improvement decision-making model for solder paste printing in SMT

Kuen-Suan Chen, Department of Industrial Engineering and Management, National Chin-Yi University of Technology, Taichung 411030, Taiwan, R.O.C

Department of Business Administration, Chaoyang University of Technology, Taichung 413310, Taiwan, R.O.C

Department of Business Administration, Asia University, Taichung 413305, Taiwan, R.O.C

Chun-Min Yu and Shui-Chuan Chen, Department of Industrial Engineering and Management, National Chin-Yi University of Technology Taichung 411030, Taiwan, R.O.C

### ID 193 A Performance Evaluation Model for the Cable TV Industry Using Quality Loss Function and Gamma Distribution

Tsun-Hung Huang, Chun-Min Yu and Yen-Chun Huang, Department of Industrial Engineering and Management, National Chin-Yi University of Technology, Taichung 411030, Taiwan

#### ID 264 Evaluating order fulfillment performance of multiple classes of products via network reliability

Hsuan-Yu Chen and Yi-Kuei Lin, Department of Industrial Engineering and Management, National Yang Ming Chiao Tung University, Hsinchu

Kuen-Suan Chen, Department of Industrial Engineering and Management, National Chin-Yi University of Technology, Taichung 411030, Taiwan

### 4:00 - 6:00 pm, WEDNESDAY

**Onsite Room 4** 

Session Chair: Peter Kilbourn, University of Johannesburg, South Africa

## Sustainability, Green Systems and Energy

### ID 173 Governance in Circular Economy: A critical review and way forward

Surajit Bag, Full Professor of Supply Chain, Purchasing and Project Management, Excelia Business School, La Rochelle, France Peter Kilbourn, Associate Professor of Supply Chain Management, Department of Transport and Supply Chain Management, University of Johannesburg, Johannesburg, South Africa

Susmi Routray, Professor of Information Technology, Institute of Management Technology Ghaziabad, Delhi-NCR, India

### ID 201 From Challenges to Solutions: Identifying challenges in Hydrogen Supply Chain Deployment

Meilinda F.N. Maghfiroh, Fatma Al Barwani and Fatma Al Balushi, Faculty of Transport & Logistics, Muscat University, Muscat, Oman

### ID 204 Material Flow Analysis for Agro-Industrial By-Product and Waste Valorization in Advancing Circular Economy Transition

Tomás Justino and Vanessa Magalhães, Department of Mechanical Engineering, Faculty of Sciences and Technologies of University of Coimbra Coimbra, Portugal

Susana Garrido, Faculty of Economics of University of Coimbra, Coimbra, Portugal

#### ID 224 Enhancing Tire Recycling Supply Chains for Sustainable Waste Management: Insights from a Data-Driven Optimization Study

Abdullah Riad, Majed Hadid and Regina Padmanabhan, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation Doha, Qatar

Mohammed Matar, Bright Future Tyre Recycling Factory, Doha, Qatar

Adel Elomri and Laoucine Kerbache, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation Doha, Qatar

# ID 228 Developing a Framework to Improve Supply Chain Resilience Strategies for Offshore Wind Energy Organizations using a Circular Economy Approach

Emeka Nwonu, Jose Eduardo Munive-Hernandez and Cuong Dao, Faculty of Engineering & Digital Technologies, University of Bradford, BD7 1DP, United Kingdom

ID 177 Assessing the Impact of Autonomous Vehicles on Supply Chain Performance – A Case Study of Agri-Food Supply Chain Nitish Suvarna and Anjali Awasthi, CIISE, Concordia University, Canada

### 4:00 - 6:00 pm, WEDNESDAY, July 2

**Onsite Room 5** 

Session Chair: Dr. Pervaiz Akhtar, University of Aberdeen, Aberdeen, UK

### **Graduate Student Paper Competition sponsored by Eaton Corporation**

ID 265 Winning the Race to 2050 Zero Emissions Goal: Integrating Alternative Fuels, Smart Mobility, and Transportation Access to Decarbonize the Mobility Sector

Leonardo Frizziero, Davide Cardi, Curzio Pagliari and Giulio Galiè, Department of Industrial Engineering, Alma Mater Studiorum - Università di Bologna, Viale Risorgimento, 2 – 40136, Bologna, Italy

Ahad Ali and Don Reimer, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University Southfield, MI 48075, USA

# ID 274 Comparative Evaluation of CAD Software for Automotive Front-End Design: A Case Study in Design Efficiency and Usability Metrics

Giulio Galiè, Curzio Pagliari and Leonardo Frizziero, Department of Industrial Engineering, Alma Mater Studiorum - Università di Bologna, Viale Risorgimento, 2 – 40136, Bologna, Italy

#### ID 343 Cybersecurity Awareness and Behavior among Faculty and Students in E-Learning Environments

Hajer al Kalbani, Assistant Professor, Department of Computer Science and Creative Technologies, Global College of Engineering and Technology Ali al Kalbani, Lecturer, College of Economics and Business Administration, University of Technology and Applied Sciences, Al-Musannah, Oman

### ID 432 Bundling or Discounting? Field Experiments for Healthy and Unhealthy Food

Nymisha Bandi, McGill University, Canada

### **High School STEM Competition**

Session Chair: Prof. Don Reimer, IEOM USA

#### ID 333 Smart Clothing System (AKS): An Innovative IoT-Based Solution for Kids

Egehan Bayram, High School student, Zonguldak, Turkey

4:00 - 6:00 pm, WEDNESDAY, July 2

Onsite Room 6

### **Faculty Job Interview**

4:00 - 6:00 pm, WEDNESDAY, July 2

**Zoom Room 7** 

Session Chair: Dr. Nazrul Islam, IEOM Canada

### Undergraduate Student Paper Competition sponsored by Siemens

### ID 154 Capacity Analysis and Optimization Usage for Blood Plasma Freezers

Christopher J. Skaria, Shaunak R. Patel, Elizabeth G. Farah and Trisha Gupta, University of Illinois at Urbana-Champaign, United States

### ID 383 Systematic Review of the Literature on Operations Management in Servuction Systems: A Case Study of Cooperative Services

Isaac José Cijanes Ballestas, CIPTEC Research Group - TIPS Research Incubator, Faculty of Engineering - Industrial Engineering Program - Technology in Industrial Production, Fundacion Universitaria Technologico Comfenalco, Cartagena, Colombia

Huver Alberto Bravo Andrades, CIPTEC Research Group - TIPS Research Incubator, Faculty of Engineering - Industrial Engineering Program - Technology in Industrial Production, Fundacion Universitaria Tecnologico Comfenalco, Cartagena, Colombia

Hernando Garzón Sáenz, CIPTEC Research Group - Faculty of Engineering - Industrial Engineering Program - Technology in Industrial Production Fundación Universitaria Tecnológico Comfenalco, Cartagena de Indias, Colombia

Andrés Redchuk, ETSII. Department of Computer Sciences. University Rey Juan Carlos. Madrid. Spain

Director of Operational Excellence and Process Improvement Institute

#### ID 402 Assessing the Safety Climate of a Local Company by NOSACQ-50 Questionnaire

Ozgur Uysal, Assistant Professor, College of Engineering and Technology, American University of the Middle East, Kuwait Deema Albanwan, Fouz Almutairi, Rawad AlRashidi, Shahad Al Olaimi and Taibah Alholi, BS Students of Industrial Engineering, American University of the Middle East, Kuwait

# ID 439 The Impact of Content Moderator Accounts on BPO Workers: Exploring How Social Media Content Exposure Contributes to Stress and Mental Health Challenges

Francis Lord Aspecto, Mary Grace P Bello, Christian G. Cabalatungan, Joseph Raniag C. Macarulay, Johnvyllle O. Mallari, Kevin John F. Renido, Jelsey Marie T. Concepcion, Lynz Krisha L. Reyes, and Maricar M. Navarro, Industrial Engineering Program, College of Engineering and Architecture, Technological Institute of the Philippines, Quezon City, Philippines

# ID 459 Generic Bills-of-Materials-Operations-Sustainability (GBOMOS) for Reconfigurable Green Manufacturing: A Cognitive Intelligent Reasoning Pilot through Retrieval Augmented Generation (RAG)

Catherine K. Jiao, School of Industrial and Systems Engineering, Georgia Institute of Technology, USA Mulang Song and Yiyun (Cindy) Fei, School of Mechanical Engineering, Georgia Institute of Technology, USA Shu Wang, TE Connectivity, Middletown, Pennsylvania, USA

Bening Mayanti and Petri Helo, School of Technology and Innovations, Industrial Management, University of Vaasa, Finland

### **Undergraduate Research Competition sponsored by Daikin Applied**

ID 408 Investigating Indoor Air Quality in Kuwait: A Study of Bokhour Smoke, Traffic Emissions, and Public Perception
Latifa Bokhadra, Sara Alajmi, Reham Almayyas and Takeaki Toma, College of Engineering and Technology, Faculty of Industrial Engineering,
American University of the Middle East Egaila, Kuwait

# ID 440 Balancing Academic Responsibilities, Work, and Leadership: Assessing the Mental Workload and Emotional Capacity of Working Students and Student Leaders in the National Capital Region

Jelsey Marie Concepcion, Justine Julia Marie Sevilla, Cristel Ann Sevilleno, Angelica Aelora Baluyot, Franchesca Roi Cipriano, Christian Jess Garriga, Jhovic Querido, Lynz Krisha Reyes, and Maricar M. Navarro, Industrial Engineering Program, College of Engineering and Architecture, Technological Institute of the Philippines, Quezon City, Philippines

# ID 461 Enhanced Employee Engagement Through Generative Al Assistance: A Combined Technology Acceptance and Organizational Support Model

Nikko Luis Tabasa, Angelo Lapascua, Trishia Anne Marie Cobalida, Samantha Caragay, Rhiza Anne Barbara Lopez, Job Kiko Raymundo, Gail Asayas Guevarra, and Maricar M. Navarro, Department of Industrial Engineering, Technological Institute of the Philippines, Quezon City, Metro Manila, Philippines

### **Master's Thesis Competition**

### ID 199 Energy consumption estimation in last-mile electric vehicle routing with multi-factor modeling

Alexandre Duarte, Department of Production Engineering, Escola Politécnica da Universidade de São Paulo, São Paulo, SP, Brazil

# ID 379 Enhancing Cervical Cancer Outcome Predictions: A Comparative Analysis of Hybrid Statistical and Machine Learning Models Using Clinical and Genomic Data

Meluleki Sibindi, Department of Informatics, National University of Science and Technology, Bulawayo, Zimbabwe

# ID 380 Enhancing Cervical Cancer Outcome Predictions: A Comparative Analysis of Hybrid Statistical and Machine Learning Models Using Clinical and Genomic Data

Meluleki Sibindi, Department of Informatics, National University of Science and Technology, Bulawayo, Zimbabwe

#### ID 436 Improving Military Facility Energy Efficiency Through Preliminary Audit and Conservation Strategies

Jovie Latade-Viloan, Graduate Programs, Master of Engineering, Major in Electrical Engineering, Technological Institute of the Philippines, Quezon City, Philippines

Jaypy Tenerife, Industrial Engineering Department, Technological Institute of the Philippines, Quezon City, Philippines Ferdinand Milan, Electrical Engineering Department, Technological Institute of the Philippines, Quezon City, Philippines

# **Doctoral Dissertation Competition sponsored by Airbus**

### ID 430 Specificities and Lessons Learned from Operational Excellence in the Moroccan Automotive Context

Mohammed Hamoumi, Mariam Benhadou and Abdellah Haddout, Industrial Management and Plastics Forming Technology Team, Mechanics, Engineering and Innovation Laboratory, LM2I, National High School of Electricity and Mechanics –ENSEM- Hassan II University, Casablanca, Morocco

### **Poster Competition**

### ID 404 Safety Climate Assessment in the Aviation Industry in Kuwait

Nashmi Aldhafeeri, Abdulla AlBuloushi, Abdulaziz Alenezi, Abdulmohsen Alharbi, and Suat Kasap, College of Engineering and Technology, American University of the Middle East, Kuwait

# July 3, 2025 (Thursday)

July 3, 2025 (Thursday) - Session: 8:00 - 9:30 am

#### 8:00 - 9:40 am, THURSDAY, July 3

Session Chair: Xuan Zhao, Wilfrid Laurier University, Canada

**Onsite Room 2** 

### **Business Management and Operations Management**

#### ID 309 Transshipment with Overconfidence

Xuan Zhao, Wilfrid Laurier University, Canada

#### ID 227 Assessing the Interaction between Artificial Intelligence and Carbon Emissions based on the Case of China

Zhen Xu, PhD Student, IESEG School of Management, CNRS, Université de Lille, Lille, France Linda Zhang, IESEG School of Management, CNRS, Université de Lille, Lille, France

#### ID 233 Optimization of bus dispatching in public transportation through a heuristic approach based on passenger demand forecasting

Javier Esteban Barrera Hernandez, MSc Student, Dept. Of Industrial Engineering, Los Andes University, Bogota, Colombia Luis Enrique Tarazona Torres, PhD Student, Dept. Of Industrial Engineering, Los Andes University, Bogota, Colombia Alejandra Tabares, Assistant Professor, Dept. Of Industrial Engineering, Los Andes University, Bogota, Colombia David Álvarez-Martínez, Associate Professor, Dept. Of Industrial Engineering, Los Andes University, Bogota, Colombia

# ID 251 Service Level-Constrained Multi-Period Inventory Management: Distribution-Free Solutions and Performance Bounds Yun Zhou, Mc Master University, Canada

# ID 260 Remanufacturing Strategies of a Domestic OEM and a Multinational Remanufacturer under Policy Interventions and FDI-induced

Nannan WANG, PhD Student, IESEG School of Management, Univ. Lille, CNRS, UMR 9221 - LEM- Lille Economie Management, Lille, France Linda Zhang, Dept. Of Operations Management, IESEG School of Management, Lille, France

#### ID 271 Focusing on the Future: Role of Operational & Financial Slack

Divyansh Tripathi, PhD Student, Indian Institute of Management Udaipur, India

Sreejith Kumar Krishnakumar, Operations Management, Quantitative Methods and Information Systems Area, Indian Institute of Management Udaipur, India

### 8:00 - 9:45 am, THURSDAY, July 3

**Technology Spillovers** 

**Onsite Room 3** 

Session Chair: Sara S Grobbelaar, Department of Industrial Engineering, Stellenbosch University, Stellenbosch, South Africa

### **Entrepreneurship and Innovation**

#### ID 150 Developing a Methodology for Communities of Expert Facilitators on an Online Platform

Annika Bastian, Ferdinand Zimmermann, Christoph Kempf and Albert Albers, IPEK – Institute of Product Engineering, Karlsruhe University of Technology (KIT), Karlsruhe, Germany

### ID 151 Implementation and Evaluation of the Cultural Synergy Spectrum Method in a Real Case Scenario

Annika Bastian and Albert Albers, Institute of Product Engineering (IPEK), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

#### ID 215 Success and failure factors of MSMEs to strengthen operational management

Julián David González Zapata, Department of Industrial and Systems Engineering, Universidad Nacional de Colombia, Bogotá D.C. Colombia Bertha Viviana Ruales Guzmán, Institute of Food Science and Technology, Universidad Nacional de Colombia, Bogotá D.C. Colombia

#### ID 218 Systems Thinking Innovation Dynamic Framework to Analyze the Progression of Innovation Systems

Michelle Smit, Department of Industrial Engineering, Stellenbosch University, Stellenbosch, South Africa Sara S Grobbelaar, Department of Industrial Engineering, Stellenbosch University, Stellenbosch, South Africa and DSI-NRF, Centre of Excellence, Scientometrics and Science, Technology, and Innovation Policy (SciSTIP), South Africa

### ID 266 Bridging Multiple Valleys of Death in Medical Device Innovation: A Matrix-Based Decision-Support Framework

Koert Rudolph Kritzinger, Department of Industrial Engineering, Stellenbosch University, Stellenbosch, South Africa

Sara S Grobbelaar, Department of Industrial Engineering, Stellenbosch University, and DSI-NRF, Centre of Excellence, Scientometrics and Science, Technology, and Innovation Policy (SciSTIP), Stellenbosch, South Africa

Faatiema Salie, Department of Industrial Engineering, Stellenbosch University, Stellenbosch, South Africa

Michelle Smit, Department of Industrial Engineering, Stellenbosch University, Stellenbosch, South Africa

### ID 391 Success of Business Incubators to Promote Entrepreneurial Practices in UAE

Maqsood Sandhu, Department of Marketing and Entrepreneurship, College of Business and Economics, United Arab Emirates University, Al Ain, UAE

#### 8:00 - 9:45 am, THURSDAY, July 3

**Onsite Room 4** 

Session Chair: Masoud Fakhimi, Surrey Business School, University of Surrey, Guildford, UK

### Sustainability, Green Systems and Energy

ID 285 Modelling and Sustainability Assessment of Biocomposites Supply Chain Networks Using Bayesian Belief Networks: A Case Study on Hemp-based Pellet Production

Niloofar Akbarian-Saravi, Bryn Crawford, Iman Jalilvand and Abbas S. Milani, Materials and Manufacturing Research Institute (MMRI), School of Engineering, University of British Columbia, Kelowna, Canada

Taraneh Sowlati, Industrial Engineering Research Group, Department of Wood Science, University of British Columbia, Vancouver, Canada

ID 301 Sustainable Flying Behavior: Green Economy Class, Sustainable Aviation Fuel, Offsetting, or Taking the Train? Wissam Ouardi and Stanislav Chankov, Constructor University, Bremen, Germany

ID 342 Enhancing Sustainability through Collaboration: A 2TL-DAD Assessment Framework for Sustainable Agri-Food Models Deniz Uztürk, Department of Business Administration, Business Research Center, Galatasaray University, Beşiktaş, Istanbul, Türkiye Gülçin Büyüközkan, Department of Industrial Engineering, Galatasaray University, Beşiktaş, Istanbul, Türkiye

#### ID 352 A Systems Modelling Approach to Sustainability: From Qualitative Insight to Simulation

Masoud Fakhimi, Surrey Business School, University of Surrey, Guildford, UK

Navonil Mustafee, Centre for Modelling, Simulation and Analytics (CSAM), University of Exeter Business School, Exeter, UK

# ID 355 A Hybrid Cost-Optimized Maintenance Strategy for Solar-Wind Systems Using Cox Proportional Hazards and Artificial Neural Networks

Aminu Tijjani, PhD student, Universite de Lorraine, LGIPM, Metz 57000, France

Aime Nyoungue, Universite de Lorraine, LGIPM, Metz 57000, France

Zied Hajej, Universite de Lorraine, LGIPM, Metz 57000, France

Akilu Yunusa-Kaltungo, Mechanical and Aeronautic Engineering, University of Manchester, Manchester, UK

# ID 360 Greening SMEs in a Warming World: Leveraging Innovation and Sustainable Practices for Resilient Business Performance Divine Q. Agozie, University of Ghana, Ghana

#### ID 370 A Decision Support System for Transportation Risk Mitigaton

Divya Choudhary, Assistant Professor, Operations Management, Indian Institute of Management Lucknow, Lucknow, India

### 8:00 - 9:45 am, THURSDAY, July 3

**Onsite Room 5** 

Session Chair: Seong-Jun Kim, Industrial and Management Engineering, Gangneung-Wonju National University, Wonju, South Korea

### Simulation, Optimization and Productivity Improvement

#### ID 288 A Fuzzy Logic based Approach to the Mixture Design Using Design of Experiments

Seong-Jun Kim, Professor, Department of Industrial and Management Engineering, Gangneung-Wonju National University, Wonju, South Korea

### ID 244 Pragmatic Approaches for Identifying and Exploiting Throughput Bottlenecks

Pedro Costa, DEGEIT, University of Aveiro, Aveiro, Portugal

Ana Moura, DEGEIT / GOVCOPP, University of Aveiro, Aveiro, Portugal

Galina Robertsone and Tatjana Tambovceva, Faculty of Engineering Economics and Management, Riga Technical University, Riga, Latvia

#### ID 252 Improving the Passenger Experience at Sharjah Airport

Maitha Saeed, Nada Khalil, Anood Saif and Amel Saif, Industrial Engineering Technology Department, Higher Colleges of Technology, UAE Yousef Abu Nahleh, Assistant Professor, Industrial Engineering Technology Department, Higher Colleges of Technology, UAE

# ID 258 Optimizing Retail Workforce Management: Integrating Machine Learning Forecasting with Constraint Programming for Dynamic Shift Planning

Tarık Küçükdeniz, Assoc. Professor, Dept. Of Industrial Engineering, Istanbul University-Cerrahpaşa, Istanbul, Türkiye Ayşe Paksoy, PhD Student, Dept. Of Industrial Engineering, Istanbul University-Cerrahpaşa, Istanbul, Türkiye İrem Nur İlbaş, MSc Student, Dept. Of Industrial Engineering, Istanbul University-Cerrahpaşa, Istanbul, Türkiye

# ID 300 Total Productive Maintenance (Tpm) Intervention to Enhance the Overall Equipment Effectiveness (Oee) of The Mespack H-180 Series In-Line Liquid Filling Machine

Cristine Edsa D. Quirante, Gerald Ian Santos and Ike Baguio, Faculty of Industrial Engineering, Cebu Technological University, Philippines

#### 8:00 - 9:45 am, THURSDAY, July 3

**Onsite Room 6** 

### **Faculty Job Interview**

### 8:00 - 9:45 am, THURSDAY, July 3

Zoom Room 7

Session Chair: Dr. Mizanur Rahman, IEOM USA

### **Human Factors and Ergonomics Competition**

## ID 390 The Effect of Interface Language on Task Completion Time in Visual Search and Content Comprehension: A Comparison of

Coskun Joe Dizmen, Assistant Professor, College of Engineering and Technology, American University of the Middle East, Kuwait Fatma Alshafei, Dalal Alnoumas, and Deemah Almusailem, Students of the Bachelor of Science in Industrial Engineering, American University of the Middle East, Kuwait

#### ID 202 A Conceptualised Framework of Smart Wearables for Chronic Kidney Disease Management

John Mulopa, Xolani Moyo and Sibusisiwe Dube, Department of Informatics and Analytics, National University of Science and Technology Bulawayo, Zimbabwe

#### ID 262 Minimize the waiting time at the emergency room

Alya Hassan Almheiri, Shamma Tariq Almahri, Salama Ahmed Alansari, Khawlah Abdullah Ghanem and Amna Abdulla Hassan, Industrial Engineering Technology Department, Higher Colleges of Technology, UAE Yousef Abu Nahleh, Assistant Professor, Industrial Engineering Technology Department, Higher Colleges of Technology, UAE

ID 275 In Bangladesh For Enhancing Productivity in the RMG Industry Through OWAS-Based Ergonomic Risk Assessment

Md Tahasin Arefin, Graduated, Industrial and Production Engineering, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Ahmed Jamil, Graduated, Industrial and Production Engineering, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Md. Nurul Absar Chowdhury, Professor, Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology,

Dhaka, Bangladesh

July 3, 2025 (Thursday) - Session: 9:40 am - 1:00 pm

## **Keynote Speakers**

Keynote V: Thursday, July 3, 2025, 9:40 – 10:20 am

### Dr. Farouk Yalaoui

Senior Director (Vice President) for Research Full Professor University of Technology of Troyes (UTT) Troyes, France

Keynote VI: Thursday, July 3, 2025, 10:20 – 11:00 am

### Dr. Guoqing Zhang

**Professor** 

Department of Mechanical, Automotive and Materials Engineering
Faculty of Engineering
University of Windsor, Canada

Keynote VII: Thursday, July 3, 2025, 11:00 – 11:40 am

### Dr. Petri Helo

Professor of Industrial Management, Logistics Systems
Head of Networked Value Systems Research Group
School of Technology and Innovations
University of Vaasa
Finland

Keynote VIII: Thursday, July 3, 2025, 11:40 am – 12:20 pm

#### Dr. Min Xie

Chair Professor, Department of Systems Engineering Chair Professor, Affiliate, Department of Data Science City University of Hong Kong Kowloon, Hong Kong, PRC

Keynote IX: Thursday, July 3, 2025, 12:20 – 1:00 pm

Romain BRUNIAUX, Ph.D.

### Valeo Group Industrial Vice-President Power Division Industrial Vice-President Paris, France

Presentation Title: Data Science and Artificial Intelligence in Valeo's Factories

1:00 Buffet Lunch

### July 3, 2025 (Thursday) - Session: 2:00 - 3:45 pm

2:00 - 3:45, THURSDAY, July 3

**Onsite Room 2** 

### Panel on Global Supply Chain and Logistics

Panel Chair

Pervaiz Akhtar, PhD Chair (Full Professor) in Business Analytics, Big Data & Supply Chains Director of MBA Programmes University of Aberdeen, UK

Panel Speaker I

Dr. Mira Chitt
Head of Mechanical Engineering Department and Engineering Management
Associate Professor of Mechanical Engineering
Global College of Engineering and Technology
Muscat, Oman

Panel Speaker II

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

Panel Speaker III

Dr. Petri Helo Professor of Industrial Management, Logistics Systems Head of Networked Value Systems Research Group School of Technology and Innovations University of Vaasa, Finland

Panel Speaker IV

Surajit Bag, PhD
Full Professor
Department of Supply Chain, Purchasing and Project Management
CERIIM – Centre de Recherche en Intelligence et Innovation Managériales
La Rochelle Cedex 1, France

#### 2:00 - 3:30, THURSDAY, July 3

Onsite Room 3

Session Chair: Kadir Ertogral, Assoc. Professor, Department of Mechanical and Industrial Engineering, Qatar University, Doha, Qatar

### **Engineering Management and Project Management**

ID 217 Comparative Evaluation of Innovation Process Models - Guide for Practical Application

Johannes Müller, Ann-Kathrin Müller and Albert Albers, Institute of Product Engineering, Karlsruhe Institute of Technology, Kaiserstr., Karlsruhe, Germany

ID 250 A generic approach for managing uncertainty in execution of large and complex projects: Generic Agile Project Management (GAPM)

Homayoun Khamooshi, The George Washington University, United States

ID 255 Insights into System Evolution from a Cross-Case Analysis Using the Model of SGE - System Generation Engineering

Albert Albers, Felix Pfaff and Tobias Düser, IPEK - Institute of Product Engineering, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

#### ID 267 Validation of an Approach to Determine Individual Target Levels of Agility in Product Development

Moritz Schoeck, Gabriel Moser, Johannes Mueller, Albert Albers and Tobias Dueser, IPEK – Institute of Product Engineering, Karlsruhe Institute of Technology (KIT), Kaiserstr. 12, D-76131 Karlsruhe, Germany

ID 311 Case Study: Systematic Approach to Derive Needs Based on Future Scenarios and Personas in the Project C2CBridge Carsten Thümmel, Christoph Kempf, Manuel Wei Spekker, Stefan Eric Schwarz, Tobias Düser and Albert Albers, Institute of Product Engineering (IPEK), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

# ID 373 Sustainable Benefits of Quality Management (Qm) Application on Products and Services Delivery in South African Manufacturing Industry

Festus Uche Uwadia, Dr. Emmanuel Innocents Edoun, Prof. Anup Pradhan and Prof. Charles Mbohwa, Faculty of Engineering and Built Environment, Department of Quality & Operation Management, University of Johannesburg, South Africa, 55 Beit St, Doornfontein, Johannesburg, 2028, South Africa

ID 382 Analysis of the performance and the behavior of Bass diffusion model in forecasting demand for fashion goods: A case study Kadir Ertogral, Assoc. Professor, Department of Mechanical and Industrial Engineering, Qatar University, Doha, Qatar Abdurrahman Yavuz, Department of Industrial Engineering, University of Miami, Coral Gables, FL, USA

### 2:00 - 3:30, THURSDAY, July 3

Onsite Room 4

Session Chair: Adel Elomri Hamad Bin Khalifa University, Qatar Foundation, Doha, Qatar

### **Supply Chain and Logistics**

#### ID 195 Optimizing the Distribution of Perishable Goods through a Metaheuristic Approach

Bahare Askarian and Suchithra Rajendran, Department of Industrial and Systems Engineering, University of Missouri, United States

#### ID 196 A Two-Stage Robust Optimization Approach for Prepositioning Logistics Items in Disaster Management

Levent Eriskin, Department of Industrial Engineering, Piri Reis University, Istanbul, 34940, Turkey

Mumtaz Karatas, Biomedical, Industrial and Human Factors Engineering Department, Wright State University, Dayton, OH, 45435, USA

#### ID 197 Optimization of Electric Vehicle Charging Infrastructure: A Case Study in Jordan

Nader A. Al Theeb, Associate Professor of Industrial Engineering, Department of Industrial Engineering, Faculty of Engineering, Jordan University of Science and Technology, Irbid, Jordan

Suliman Al Asmar and Abdallah Batayneh, Department of Industrial Engineering, Faculty of Engineering, Jordan University of Science and Technology, Irbid, Jordan

#### ID 220 A Digital Twin for Air Cargo Ground Operations: Connecting the Real with the Virtual

Jenny Tonka and Michaël Schyns, Center for Quantitative Methods and Operations Management, HEC Liège - Management School of the University of Liège, Liège, Belgium

#### ID 198 Comparative Analysis of Machine Learning Models for Predicting Energy Consumption on Last-Mile BEV Routes

Alexandre Duarte and Hugo Tsugunobu Yoshida Yoshizaki, Department of Production Engineering, Escola Politécnica da Universidade de São Paulo. São Paulo. SP. Brazil

### 2:00 - 3:30, THURSDAY, July 3

**Onsite Room 5** 

Session Chair: Zulfigar Ali, British Columbia Institute of Technology (BCIT), Burnaby, BC, Canada

### **Engineering Education and Curriculum Improvement**

# ID 229 Investigating the Effect of Pipe Material Stiffness in Water Leakage through Longitudinal Cracks in Pressurized Pipes: An Experimental and Numerical Analysis to Reduce Non-Revenue Water

Didier Ilunga, PhD Student and Senior Pipeline Engineer, Dept. Of Pipeline Asset Management, Rand Water, Johannesburg, South Africa Dinka Mergesa and Daniel Madyira, Dept. Of Civil Engineering Science/Dept. Mechanical Engineering, University of Johannesburg, South Africa

#### ID 237 Engineering a Secure Audit Framework for Al-Integrated Digital Education

Thiru pandian, University of texas at Dallas, United States

# ID 354 Transforming Indonesia Drilling Training Center – Pertamina Drilling Services Indonesia as One of Biggest Drilling Training Center in South East Asia: Implementation of MINDCRAFT to Drive Revenue and Competency Development

Ng Willam Wijaya, Chair Rony, Muhammad Iqbal Shahputra, Hilman Himawan, Ardian Aminuddin, Aktrilianjas Ulpa, Minar Prianto and Dora Indah, Pertamina Drilling Services Indonesia, Subholding Upstream, Pertamina, Jakarta

### ID 385 Al Design Analysis for Diploma Education in Canada

Zulfiqar Ali, Faculty Member, Department of Computer Information System Administration (CISA), British Columbia Institute of Technology (BCIT), Burnaby, BC, Canada

# ID 400 Evaluating the Influence of SDG Educational Practices on the CIT-U Industrial Engineering Graduates' Commitment to Sustainable Industrial Development

Monique Ann G. Obiedo, Cheradee Ann M. Cabanlit, Evangeline C. Evangelista and Ella Marie Y. Barrioquinto, Department of Industrial Engineering, Cebu Institute of Technology – University, Philippines

2:00 - 6:00, THURSDAY, July 3

**Onsite Room 6** 

### Six Sigma Workshop

Dr. Ahad Ali Lawrence Technological University Michigan, USA

2:00 - 3:30, THURSDAY, July 3

Zoom Room 7

Session Chair: Dr. Nazrul Islam, IEOM Canada

### **Artificial Intelligence and Data Science**

#### ID 178 Al and IoT in Early Detection of Frogeye Leaf Spot Disease in Soybean: A Systematic Literature Review

Passmore Vareta, Melusi Moyo and Sibusisiwe Dube, Department of Informatics and Analytics, National University of Science and Technology, Bulawayo, Zimbabwe

Sinokubekezela P. Dube, School of Engineering, The University of Zambia, Lusaka, Zambia

#### ID 203 Ensuring Data Privacy in Al-Driven Educational Platforms: A Systematic Literature review

Banele Mpande, Tiese Chazuza, Thembelihle Siwela, Musawenkosi Moyo and Sibusisiwe Dube, Department of Informatics and Analytics National University of Science of Technology, Bulawayo, Zimbabwe

# ID 249 A comprehensive review of artificial intelligence, deep learning, and machine learning in facilitating deaf and non-verbal communication

Maryrose Muchemwa, Part 5 Biomedical Engineering Student, University of Zimbabwe, Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, Mt Pleasant, Harare, Zimbabwe

Muscline Ganda, Research Scientist, Food and Biomedical Technology Institute, Scientific and Industrial Research and Development Centre (SIRDC), Harare, Zimbabwe

Farahd Amos, Medical Doctor and Lecturer, University of Zimbabwe, Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, Mt Pleasant, Harare, Zimbabwe

Tawanda Mushiri, Executive Director Technical and Professor of Artificial Intelligence, Scientific and Industrial Research and Development Centre (SIRDC), Harare, Zimbabwe

Research Fellow, University of South Africa, College of Science, Engineering and Technology, Florida Park, Roodepoort, South Africa Charles Mbohwa, Distinguished Professor, University of South Africa, College of Science, Engineering and Technology, Roodepoort, South Africa

### ID 307 Oral Cancer Detection using Computational Intelligence: A Systematic Review

Sangeeta Giri, Unitedworld Institute of Technology, Karnavati University, Gandhinagar, Gujarat, India Manivel Kandasamy, Unitedworld Institute of Technology, Karnavati University, Gandhinagar, Gujarat, India Yash Sanjay Gaur, Unitedworld Institute of Technology, Karnavati University, Gandhinagar, Gujarat, India

#### ID 384 A Decision Support System with ANN Algorithm for Health Systems Evaluation

Yigit Yeni, Halenur Buber, Eren Beytekin, Pinar Elverdi and Dr. Ozgur Erol, Faculty of Engineering and Natural Sciences, Department of Industrial Engineering, Istanbul Medipol University, Istanbul, Turkey

### ID 395 The monitoring and control model of agricultural products in the harvesting process utilises artificial intelligence

Victor Martin Maldonado Benitez, ESIME Zacatenco, Instituto Politécnico Nacional, Mexico City, Mexico Gabriela Guadalupe Escobedo Guerrero, ESCA Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico Luis Carrillo Torres, ESCA Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico

### ID 413 Testing a Multi-Model Artificial Intelligence System to Detect Ransomware Activity

Alexander Veach and Munther Abualkibash, School of Information Security and Applied Computing, Eastern Michigan University, Ypsilanti, MI, USA

### ID 434 A Structural Path Analysis of Employee Perceptions on Artificial Intelligence Integration at Work

Gerald O. Semifrania, Technological Institute of the Philippines, Asian Institute of Management, Quezon City, Philippines Jaypy T. Tenerife, Industrial Engineering Department, Technological Institute of the Philippines, Quezon City, Philippines

### July 3, 2025 (Thursday) - Session: 4:00 - 5:45 pm

4:00 - 6:00, THURSDAY, July 3

**Onsite Room 2** 

Ph.D. Workshop

Chair

Dr. Linda ZHANG Professor of Operations Management IESEG School of Management Paris La Defense, France

#### **Speakers**

Dr. Roel Leus Professor of Operations Research KU Leuven Leuven, Belgium

Dr. Jianxin (Roger) Jiao Associate Professor of Enterprise Systems Engineering G.W. Woodruff School of Mechanical Engineering Georgia Institute of Technology Atlanta, GA, USA

Dr. Petri Helo Professor of Industrial Management Head of Networked Value Systems Research Group School of Technology and Innovations University of Vaasa Finland

Dr. George Q. Huang
Chair Professor of Smart Manufacturing
Director of Research Institute for Advanced Manufacturing
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

#### 4:00 - 6:00, THURSDAY, July 3

**Onsite Room 3** 

Session Chair: Indra Gunawan, Adelaide Business School, The University of Adelaide, Adelaide, SA 5005, Australia

### Digital Manufacturing, Industry 4.0 and IoT

#### ID 162 On Time, Every Time: Integrating Autonomous Vehicles in Food Delivery

Ganesh Janakiraman, Soraya Fatehi, and Neda Mirzaeian, Jindal School of Management, University of Texas at Dallas, United States

#### ID 160 Enhancing Hazmat Logistics Safety through IoT: A Practical Study Focused on Oman

Ali al Kalbani, Lecturer, College of Economics and Business Administration, University of Technology and Applied Sciences, AlMussana, Sultanate of Oman

#### ID Analysis of Dynamic Capabilities for Digital Transformation in the Construction Industry

Navodi Wijayarathne, Indra Gunawan and Frank Schultmann, Adelaide Business School, The University of Adelaide, Adelaide, SA 5005, Australia

### ID 200 Digital Twin Technology for Hospital Bed Management: Data-Driven Comparative Optimization Study

Majed Hadid, Regina Padmanabhan, Adel Elomri and Laoucine Kerbache, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

Abdelfatteh El Omri and Omar M Aboumarzouk, Surgical Research Section, Department of Surgery, Hamad Medical Corporation, Doha, Qatar

### ID 378 Integrating External APIs Into Unity: Methods and Applications

Francesca Giuliani and Leonardo Frizziero, Department of Industrial Engineering, Drawings and Methods, Università degli Studi di Bologna Bologna, Italy

Andrea Detratti, IT Department Bonfiglioli Spa, Bologna, Italia

### ID 387 Towards a Function-based Module Variant Management: an Automotive Case Study

Jun Lee, Junyeol Ryu and Yoo Suk Hong, Department of Industrial Engineering and Institute for Industrial Systems Innovation, Seoul National University, Seoul, 08826, South Korea

### 4:00 - 6:00, THURSDAY, July 3

**Onsite Room 4** 

Session Chair: Bethany R. Lowndes, University of Nebraska Medical Cener, Innovation Design Unit, Nebraska Medicine, Omaha, NE, USA

### **Human Factors, Ergonomics and Healthcare**

### ID 280 Patient Acuity and Hospital Rooming: Initial Assessment of Acuity-Based Placement on a Medical Surgical Unit

Bethany R. Lowndes, College of Medicine, Department of Neurological Sciences, University of Nebraska Medical Cener, Innovation Design Unit, Nebraska Medicine, Omaha, NE 68198, USA

Breanna Hetland, College of Nursing, Omaha Division, University of Nebraska Medical Cener, Innovation Design Unit, Nebraska Medicine, Omaha, NE 68198, USA

Meghan Mendick, Innovation Design Unit, Nebraska Medicine, Omaha, NE 68105, USA

### ID 359 Enhancing Road Safety Through Tire Specification Awareness: An Empirical Study Among Commercial Drivers in Ghana

John K. Buor, OMIS Department, UGBS, Ghana

Mark Ofori Poku Adomako, OMIS Department, UGBS, Ghana

#### ID 445 Driver Performance Analysis: Posture and Ergonomic Impact

Saed Talib Amer, Abdulrahman Saleh Al Hashmi, and Mariam Ali Abdulla Alhammadi, Department of Management Science and Engineering, Khalifa University of Science and Technology, Abu Dhabi, UAE

#### ID 446 The Impact of Plants on Indoor Air Quality and Health Effects

Abdulrahman Saleh Al Hashmi, Mariam Ali Abdulla Alhammadi and Saed Talib Amer, Department of Management Science and Engineering, Khalifa University of Science and Technology, Abu Dhabi, UAE

#### ID 447 Evaluating HSE Culture in the Oil and Gas Industry: A Comprehensive Assessment

Abdulrahman Saleh Al Hashmi, Mariam Ali Abdulla Alhammadi and Saed Talib Amer, Department of Management Science and Engineering Faculty of Engineering, Khalifa University of Science and Technology, Abu Dhabi, UAE

### **Business Management and Operations Management**

Session Chair: Tina Arabian, Bissett School of Business, Mount Royal University, Calgary, Canada

### ID 372 Impact of Quality Management (Qm) on Product and Service Delivery in South African Manufacturing Industry

Festus Uche Uwadia, Dr. Emmanuel Innocents Edoun, Prof. Anup Pradhan and Prof. Charles Mbohwa, Faculty of Engineering and Built Environment, Department of Quality & Operation Management, University of Johannesburg, Doornfontein, Johannesburg, South Africa

### ID 399 Leveraging Upgradable Product Design as a Circular Strategy under Servicizing

Tina Arabian, Assistant Professor of Supply Chain Management, Department of International Business and Supply Chain Management Bissett School of Business, Mount Royal University, Calgary, Canada

D. Marc Kilgour, Professor of Mathematics, Department of Mathematics, Wilfrid Laurier University, Waterloo, Ontario, Canada Hamid Noori, Laurier Chair Professor in Enterprise Integration and Technology Management; Academic Director, Lazaridis Institute for the Management of Technology Enterprises, Lazaridis School of Business and Economies, Wilfrid Laurier University, Waterloo, Ontario, Canada

### 4:00 - 6:00, THURSDAY, July 3

**Onsite Room 5** 

Session Chair: Dr. Hajej Zied, Associate Professor, University of Lorraine, Metz, France

### **AI-ML** Competition

## ID 374 A Hybrid Cost-Optimized Maintenance Strategy for Solar-Wind Systems Using Cox Proportional Hazards and Artificial Neural Networks

Aminu Tijjani, PhD student, Universite de Lorraine, LGIPM, Metz 57000, France

Aime Nyoungue, Universite de Lorraine, LGIPM, Metz 57000, France

Zied Hajej, Universite de Lorraine, LGIPM, Metz 57000, France

Akilu Yunusa-Kaltungo, Mechanical and Aeronautic Engineering, University of Manchester, Manchester, UK

### ID 433 Bundling or Discounting - Field Experiments for Healthy and Unhealthy Food

Nymisha Bandi, McGill University, Canada

### **Artificial Intelligence and Data Science**

ID 357 Leveraging AI Technologies for Road Conditions Assessment A Multiple Regression and Structural Equation Model Approach Victor Rambau and Thomas Thinandavha Munyai, Dept. of Operations Management, Tshwane University of Technology, Pretoria, South Africa Olasumbo Makinde, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

# ID 398 Optimization Technique of the Philippine Army Warehousing and Inventory System (PAWIS) Using Cloud and Edge Computing: Development of a Strategic Framework for All Units

Cherry D. Casuat, Arvin R. De La Cruz, Joshua Benjamin B. Rodriguez, Jan Reuelle P. Teña, Joselinda M. Golpeo and Guillermo O. Bernabe Faculty, College of Engineering, Polytechnic University of the Philippines, Sta Mesa, Manila

2:00 - 6:00, THURSDAY, July 3

Onsite Room 6

### **Continuation of Six Sigma Workshop**

Dr. Ahad Ali, Lawrence Technological University, Michigan, USA

4:00 - 6:00, THURSDAY, July 3

Zoom Room 7

Session Chairs: Sipedeh Abolghasem, California State University Northridge, Northridge, California, USA and Dr. Nazrul, IEOM Canada

### Graduate Student Paper Competition sponsored by Eaton

ID 469 Smart Robotic Manufacturing Operations with Adaptive Task Planning: A GPT-Augmented Multi-Channel Ensemble Learning with Situational Awareness

Yiyun Fei, Mulang Song, and Roger J. Jiao, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA, USA

## **Lean Six Sigma and Operations Excellence**

#### ID 286 Improving the Rate of Patient No Show to The Klotz Student Health Center at California State University Northridge

Christopher Villalpando, Lina Gurgenian, and Charity Custance, Graduate Students, Dept. of Manufacturing Systems Engineering and Management, California State University, Northridge, California, USA

Sipedeh Abolghasem, Professor, Dept. of Manufacturing Systems Engineering and Management, California State University, Northridge, CA, USA

#### ID 315 Reducing Bottle Height Variation to Enhance Quality, Operational Efficiency, and Revenue

Akash Anil Toradmal, Chirag Chandrakant Poshirkar, Chhayank Pravin Bhirud, and Sepideh Abolghasem, Ph.D., Associate Professor, Department of Manufacturing Systems Engineering and Management, California State University, Northridge, United States

#### ID 350 Reducing Bottle Height Variation to Enhance Quality, Operational Efficiency, and Revenue

Akash Anil Toradmal, Chirag Chandrakant Poshirkar, Chhayank Pravin Bhirud and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge, United States

#### ID 344 Adaptive Production Strategies in an Era of Tariff Uncertainty

Bharat Srivastava, Marquette University, United States

#### ID 363 Reduction of Threading Defects in Shaft Manufacturing Using Six Sigma DMAIC Methodology

Shahbaz Ansari, Manufacturing Systems Engineering and Engineering Management California State University of Northridge, United States Nikhil Naik, Manufacturing Systems Engineering and Engineering Management California State University of Northridge, United States Piyush Kasbe, Manufacturing Systems Engineering and Engineering Management California State University of Northridge, United States Sepideh Abolghasem, Associate Professor of Manufacturing Systems Engineering and Management, California State University of Northridge, USA

#### ID 407 Streamlining Supplier Evaluation through Automation: A Lean Six Sigma Approach for Cutting Processing Time

Rokia Elshahhat, Joud Abuobid, and Muhammad Imran, Department of Mechanical and Industrial Engineering, Rochester Institute of Technology Dubai, United Arab Emirates

# ID 412 Service Management Model Based on Lean Service Tools and Ergonomic Design to Increase the Productivity of Cleaning Operations in a Food Court

Michela Alejandra Quintana-Rodriguez and Christina Liesl Ascencio-Ramirez, From the Faculty of Engineering, Universidad de Lima, Lima, Perú Richard Meza Ortiz, Faculty of Industrial Engineering Professor, School of Industrial Engineering Member, Operations Management and Green Logistics Research Group, Universidad de Lima, Lima, Perú

#### ID 435 Risk Analysis of Wind Turbine Using Machine Learning and Al

Dharmik Parekh, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, India M.B. Kiran, Associate Professor, Dept. of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, India

# **July 4, 2025 (Friday)**

July 4, 2025 (Friday) - Session: 8:00 - 9:30 am

8:00 - 9:30, FRIDAY, July 4

**Onsite Room 2** 

Session Chair: Hannelie Nel, University of Pretoria, South Africa

## Case Studies and Best Practices

#### ID 166 Framework for New Product Development in a Research and Development Manufacturing Environment

Koogan Kistan, Department of Engineering and Technology Management, Faculty of Engineering and the Built Environment, University of Pretoria, Pretoria, South Africa

Hannelie Nel, Associate Professor in Engineering Management, Department of Engineering and Technology Management, Faculty of Engineering and the Built Environment, University of Pretoria, Pretoria, South Africa

Antonie de Klerk, Associate Professor in Engineering Management, Department of Engineering and Technology Management, Faculty of Engineering and the Built Environment, University of Pretoria, Pretoria, South Africa

#### ID 276 The Feasibility of Implementing Cost Reduction Strategies for Green Hydrogen Production in Oman

Hamood Al Hajri and Mira Chitt, Mechanical Engineering Department, Global College of Engineering and Technology, Muscat, Oman

### ID 312 The Critical Successful Factors of Handmade Goods to Attract Consumer's Intention to Purchase-A Case Study of Clay Molding

Cecilia María Angélica Jara Báez, Industrial Engineering, Taiwan-Paraguay Polytechnic University, Paraguay

Industrial Management, National Taiwan University of Science of Technology, Taiwan

Su-Hua Ku, Business Administration, Chung Yuan Christian University, Taiwan

Yanina Luján Guillén Gómez, Industrial Engineering, Taiwan-Paraguay Polytechnic University, Paraguay

Industrial Management, National Taiwan University of Science of Technology, Taiwan

Yueh-Ling Chen, Industrial Engineering, Taiwan-Paraguay Polytechnic University, Paraguay

Industrial Management, National Taiwan University of Science of Technology, Taiwan

Shih-Hsien Tseng, National Taiwan University of Science and Technology, Taiwan

8:00 - 9:30, FRIDAY, July 4

**Onsite Room 3** 

Session Chair: Guoqing Zhang, University of Windsor, Windsor, Ontario, Canada

## **Supply Chain and Logistics**

ID 308 Enhancing Tire Recycling Supply Chains for Sustainable Waste Management: Insights from a Data-Driven Optimization Study

Abdullah Riad, Majed Hadid and Regina Padmanabhan, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation Doha, Qatar

Mohammed Matar, Bright Future Tyre Recycling Factory, Doha, Qatar

Adel Elomri, Laoucine Kerbache, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Qatar Foundation Doha, Qatar

ID 340 Learning from the sparse and uncertain: adaptive life cycle curve prediction via dynamic fusion

Xin Li, PhD student, School of Economics and Management, Fuzhou University, Fuzhou, China Quan Cheng, School of Economics and Management, Fuzhou University, Fuzhou, China Xiaoli Su, School of Economics and Management, Fuzhou University, Fuzhou, China Chenghu Yang, School of Economics and Management, Fuzhou University, Fuzhou, China

Jie Xiong, Department of Strategy, Entrepreneurship and International Business, ESSCA School of Management, France

Yuan Zhe, De Vinci Higher Education, De Vinci Research Center, Paris, France

De Vinci Research Center, France

ID 341 Harnessing Artificial Intelligence for Strategic Procurement: Enhancing Efficiency, Transparency, and Decision-Making Jouhara al Habsi and Ali al Kalbani, College of Economics and Business Administration, University of Technology and Applied Sciences, Al-Musannah, Oman

ID 345 Smart Supply Network Optimization: OR and Al Perspectives

Guoqing Zhang, Supply Chain Management and Logistics Optimization Research Center, Department of Mechanical, Automotive & Materials Engineering, University of Windsor, Windsor, Ontario, Canada

8:00 - 9:30, FRIDAY, July 4

**Onsite Room 4** 

Session Chair: Nita Sukdeo, Department of Quality and Operations Management, University of Johannesburg, South Africa

## Digital Manufacturing, Industry 4.0 and IoT

ID 281 Toward a Secure and Scalable Vaccine Supply Chain: A Systematic Literature Review of Blockchain, IoT, and Cryptographic Frameworks

Mohammed EL Amine Benyelles, De partement de Ge nie Industriel, Université de Tlemcen, Alge rie Lamia Triqui, De partement de Ge nie Industriel, Université de Tlemcen, Alge rie Mohammed Dahane, Université de Lorraine, LGIPM, F-57000 Metz, France

ID 334 Evolving competencies and methodological preferences in IT project management: An industry 4.0 perspective XI Ngcana, Master's student, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa BBS Makhanya, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

JHC Pretorious, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

8:00 - 9:30, FRIDAY, July 4

**Onsite Room 5** 

## **Faculty Job Interview**

8:00 - 9:30, FRIDAY, July 4

Zoom Room 7

Session Chairs: BBS Makhanya, University of Johannesburg, South Africa and Dr. Mizanur Rahman, IEOM Australia

## Industry 4.0, Automation, IoT and Reliability

#### ID 179 Precision Agriculture: A Systematic Literature Review

Blessing Maninga, Tinashe E. Mbiriri, Angeline Coffee and Ayanda Ncube, Department of Informatics and Analytics, National University of Science and Technology, Bulawayo, Zimbabwe

Sinokubekezela P. Dube, School of Engineering, The University of Zambia, Lusaka, Zambia

#### ID 243 Vision Based Bottle Classification and Automatic Filling Machine

Dr. N. Bhoopal, Department of Electrical and Elctronics Engineering, B V Raju Institute of Technology, Narsapur, India Akkamgari Harsha sri, Department of Electrical and Elctronics Engineering, B V Raju Institute of Technology, Narsapur, India Boggula Varun Kumar, Department of Electrical and Elctronics Engineering, B V Raju Institute of Technology, Narsapur, India Gaddameedi Amulya, Department of Electrical and Elctronics Engineering, B V Raju Institute of Technology, Narsapur, India Akula Sathwik Chandra, Department of Electrical and Elctronics Engineering, B V Raju Institute of Technology, Narsapur, India

### ID 335 Reliability of the Electrical Multiple Unit train set Maintenance in a Manufacturing Company

Vulani Charlotte Ngobeni, Master's student, Postgraduate School of Engineering Management, University of Johannesburg, South Africa BBS Makhanya, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa JHC Pretorious, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

#### ID 377 Optimization of Industrial Operational Systems Within Industry 4.0 In the Automotive Sector

Hassna Bouhamid, Advanced Systems Engineering Laboratory, The Ecole Nationale des Sciences Appliquées (ENSA), School of Engineering IBN TOFAIL University, Kenitra, Morocco

Bouazaoui Oussama, The Ecole Nationale des Sciences Appliquées (ENSA), School of Engineering, IBN TOFAIL University, Kenitra, Morocco Ismail Lagrate, The Ecole Nationale des Sciences Appliquées (ENSA), School of Engineering, IBN TOFAIL University, Kenitra, Morocco

### ID 386 Inspection of Castings Using Vision System

MB Kiran, Pandit Deendayal Petroleum University, India

#### ID 442 Dynamic Resource Optimization in 5G Networks: Integrating Mobile Edge Computing and Network Slicing

Abdellah Amzil and Mohamed Hanini, Hassan First University of Settat, Faculty of Sciences and Technology, Networks, Mobility and Modeling laboratory, IR2M, Morocco

Abdellah Zaaloul, Mathematical Modeling Laboratory and Economic Calculation (LM2CE), Faculty of Economic and Social Legal Sciences, Hassan First University of Settat, 26000, Morocco

#### ID 268 Spreading digital Servitization in the Machinery Industry Sector: Preliminary Results from an Empirical Survey

Marco Ardolino, Federico Adrodegari, Nicola Saccani and Laura Scalvini, RISE Research Laboratory, Department of Mechanical and Industrial Engineering, Università degli Studi di, Brescia, Italy

Andrea Gozzi, Digital Industries World, Italy

# ID 303 Enhancing Customer Service and Quality in Municipal Water Testing Laboratories through Digital Transformation: A West Rand District Case, South Africa

Humbulani Matamela, Sambil Charles Mukwakungu and Nita Sukdeo, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

## ID 302 Assessing and Optimizing Safety Operations in Mining: A Case Study of a South African Mine

Takunda Marko, Nelson Sizwe Madonsela and Sambil Charles Mukwakungu, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

## July 4, 2025 (Friday) - Session: 10:00 am - 1:00 pm - Onsite Room A

# **Keynote Speakers**

10:00 – 10:20 Remarks from Conference Chairs

10:20 – 11:00 Keynote X:

## Dr. Jianxin (Roger) Jiao

Associate Professor of Enterprise Systems Engineering G, W. Woodruff School of Mechanical Engineering Georgia Institute of Technology Atlanta, GA, USA

11:00 – 11:40 Keynote XI:

## Dr. Alexandre Dolgui

Professor and Head, Automation, Production and Computer Sciences Dept. IMT Atlantique, LS2N-CNRS, NANTES Cedex 3, France Editor-in-Chief, International Journal of Production Research (IJPR)

11:40 – 12:20 Keynote XII:

## Dr. Bingwen Yan

Professor and Head of Department, Department of Industrial & Systems Engineering
Cape Peninsula University of Technology
Cape Town, South Africa

12:20 – 13:00 Keynote XIII:

# **Dr. Thierry Benoist**Founder and CEO

Hexaly, Paris, France

1:00 Buffet Lunch

July 4, 2025 (Friday) - Session: 2:00 - 3:30 pm

2:00 - 3:30, FRIDAY, July 4

Onsite Room 2

## Al in Manufacturing Panel

Panel Chair

Dr. Mira Chitt
Head of Mechanical Engineering Department and Engineering Management
Associate Professor of Mechanical Engineering
Global College of Engineering and Technology
Muscat, Oman

Panel Speaker I

Prof. George Q. Huang
Chair Professor of Smart Manufacturing
Director of Research Institute for Advanced Manufacturing
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

Panel Speaker II

Dr. Jianxin (Roger) Jiao Associate Professor of Enterprise Systems Engineering G,W. Woodruff School of Mechanical Engineering Georgia Institute of Technology, Atlanta, GA, USA

Panel Speaker III

Alexandre Dolgui, Dr.habil., Ph.D., IISE Fellow Professor and Head, Automation, Production and Computer Sciences Dept. IMT Atlantique, LS2N-CNRS, La Chantrerie, 4, rue Alfred Kastler – B.P. 20722 F-44307 NANTES Cedex 3, France Editor-in-Chief, International Journal of Production Research (IJPR)

Panel Speaker IV

Dr. Ali Siadat Full Professor, Laboratoire de Conception, Fabrication Commande Arts et Métier Paris Tech Centrede Metz, France

2:00 - 3:30, FRIDAY, July 4

**Onsite Room 3** 

Session Chair: Amir Alwan, Assistant Professor, Lubar College of Business, University of Wisconsin-Milwaukee, USA

## **Business Management and Operations Management**

ID 272 Evaluating the Operational Manageability of Container Terminals with Consideration of Port Handling Processes

Myeonghwan Kim, Ms Student, Major in Production Management, Department of Business Administration, Changwon National University, Changwon, Republic of Korea

Jaehun Park, Major in Production Management, Department of Business Administration, Changwon National University, Changwon, Republic of Korea

ID 282 Dynamic Control of Multiclass Omnichannel Hybrid Production Systems: Applications to Dynamic Pricing in Restaurants Amir Alwan, Assistant Professor, Lubar College of Business, University of Wisconsin—Milwaukee, USA Nasser Barjesteh, Rotman School of Management, University of Toronto, Canada

ID 299 Integrating Environmental Features for Green Knowledge-Driven Sustainability

Nosheen Qadeer, Department of Economics and Management, Tomas Bata University, Zlin, Czech Republic Doc. Ing. Jana Matošková, Ph.D., Department of Economics and Management, Tomas Bata University, Zlin, Czech Republic

Muhammad Shoaib, Igbal, Department of Civil Engineering, Construction and Management Division, National Taiwan University, Taipei Taiwan

## ID 332 Artificial Intelligence in Supply Chain and Operations Management: Driving Global Sustainability and Positive Business Transformation

Sina Zare, Department of Information Systems and Business Analytics, Loyola Marymount University, Los Angeles, USA Yasaman Ghasemi, Department of Information Systems and Business Analytics, Loyola Marymount University, Los Angeles, USA

#### 2:00 - 3:30, FRIDAY, July 4

Onsite Room 4

Session Chair: Gaia Vitrano, Politecnico di Milano, Italy

## Manufacturing, Assembly and Design

#### ID 170 Operator Assignment Problem in Multiple Cells Production Systems with Operator Sharing

Yiyo Kuo and Shih-Chen Chen, Department of Industrial Engineering and Management, Ming Chi University of Technology, New Taipei City, Taiwan

# ID 238 Innovative Closed-Loop Self-Sustaining Freshwater Cooling Technologies for AC CWP Condenser in The Maritime Industry: A Feasibility Study

Jaber Al Balushi and Mira Chitt, Mechanical Engineering Department, Global College of Engineering and Technology, Muscat, Oman

#### ID 257 Robust Reconfiguration Planning of Mixed-model Assembly Lines Under Uncertainty

Mobina Razmara, S. Ehsan Hashemi-Petroodi, Frédéric Babonneau, The Centre of Excellence in Supply Chain (CESIT), KEDGE Business School, Bordeaux, France

Alexandre Dolgui, IMT Atlantique, LS2N, UMR CNRS 6004, F-44307, Nantes, France

### 2:00 - 3:30, FRIDAY, July 4

**Onsite Room 5** 

Session Chair: Junsong Bian, Rennes School of Business, 2 rue Robert d'Arbrissel, Rennes, France

## **Supply Chain and Logistics**

## ID 234 Application of Hybrid Memetic Algorithm to solve Dynamic Vehicle Routing Problem with Overtime in the context of reverse logistics

Amina Berahhou, Smart Systems Laboratory, Rabat IT Center ENSIAS, Mohammed V University, Rabat, Morocco Youssef Benadada, Smart Systems Laboratory, Rabat IT Center ENSIAS, Mohammed V University, Rabat, Morocco

### ID 279 Smart Swaps: Optimizing Rotable Inventory for Exchange-Based Maintenance and Overhaul Operations

Murat Erkoc, Department of Industrial and Systems Engineering, University of Miami, Coral Gables, FL, USA Salvador Romo-Fragoso, Stahl LLC, Miami, FL USA

#### ID 306 The Peril of Channel Integration with Environmental Quality Under Competition

Suzhen Liang, Junsong Bian and Adilson Borges, Rennes School of Business, 2 rue Robert d'Arbrissel, 35065, Rennes, France

2:00 - 6:00, FRIDAY, July 4

**Onsite Room 6** 

## **Entrepreneurship and Innovation Workshop**

Professor Don Reimer Adjunct Professor, Lawrence Technological University Michigan, USA

2:00 - 3:30, FRIDAY, July 4

Zoom Room 7

Session Chairs: Morelia Frías, Departamento de salud municipal de corral, Chile and Dr. Nazrul Islam, IEOM Canada

## **Engineering Management, Business Management and Operations Management**

ID 155 Rapid Development of Information Systems (IS) Artifacts using Design Science Research Methodology (DSRM)

Michael Bosch, PhD Student, University of Johannesburg, Faculty of Engineering and the Built Environment, Auckland Park, South Africa

Jan Harm C Pretorius and Leon Pretorius, University of Johannesburg, Faculty of Engineering and the Built Environment, Auckland Park, South Africa

#### ID 348 Improvement of Productivity in the Jean Pants Line in Textile Through Lean Manufacturing Tools

Piero Alexander Garces Pinedo, Diego Miguel Carrascal Gutiérrez, and Carlos Medardo Urbina Rivera, Universidad de Lima, Perú

# ID 346 Sustainable blockchain-enabled cut-flower supply chain design to achieve environmental targets; an integrated mathematical model approach

Zahra Mohammadnazari, PhD student in Centre for Business in Society, Coventry University, Coventry, UK

Mahdi Bashiri, Associate Professor in Centre for Business in Society, Coventry University, Coventry, UK David Bek, Professor of Creative Economies and Ecological Sustainability, Research Centre for Creative Economies, Coventry University, UK

#### ID 394 Swapping Ahead: Key Enablers of Battery Swapping in India's Electric Vehicle Ecosystem

Rudra Prakash Pradhan, Ann Mary Varghese, Arnab Chakraborty, Aditi Sen and Upasana Haldar, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB- 721302, India

## ID 389 "What Makes Vietnam More Attractive Than Indonesia in The Eyes of Technology Company as Their Investment Destination?": Through the lens of FDI Motivation Theory

Edrick Raynell Jiang, International Business Management Department, BINUS Business School, Bina Nusantara University, Tangerang, Indonesia Scherly Hansopaheluwakan, S.E., M.I.B., International Trade Department, Bina Nusantara University, Medan, Indonesia

#### ID 438 Ergonomic Assessment of Manual Loading and Unloading of Wood in Forestry Trucks

Morelia Frías, Departamento de salud municipal de corral, Chile

## ID 437 Optimization of the Cocoa Production Chain: Key Strategies for a Stronger Industry in San Martin, Peru

Elizabeth Orrego Valverde and Maria Teresa Noriega-Aranibar, Universidad de Lima, Peru

## **Doctoral Dissertation Competition sponsored by Airbus**

# ID 381 Improve Xpert4.0: A Big Data-Driven System to Support Continuous Improvement Initiatives and Decision-Making in 4.0 Companies

Ângela F. Brochado, Ph.D., Research Fellow of Industrial Engineering and Management, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), Center for Research and Development in Mathematics and Applications (CIDMA), University of Aveiro, Portugal

Eugénio M. Rocha, Ph.D., Associate Professor of Mathematics and Data Science, Department of Mathematics (DMat), Center for Research and Development in Mathematics and Applications (CIDMA), University of Aveiro, Aveiro, Portugal

Carina Pimentel, Ph.D., Assistant Professor of Industrial Engineering and Management, Production and Systems Department, Algoritmi Research Unit, University of Minho, Aveiro, Portugal

July 4, 2025 (Friday) - Session: 4:00 - 5:45 pm

4:00 - 6:00, FRIDAY, July 4

**Onsite Room 2** 

## Meet the Editors Panel II

## Panel Chair

Dr. Laoucine Kerbache
Professor
Head of Engineering Management & Decision Sciences Division
College of Science and Engineering
Hamad Bin Khalifa University, Doha, Qatar

## **Panelists**

Alexandre Dolgui, Dr. habil., Ph.D., IISE Fellow Professor and Head, Automation, Production and Computer Sciences Dept. IMT Atlantique, LS2N-CNRS, La Chantrerie, 4, rue Alfred Kastler – B.P. 20722 F-44307 NANTES Cedex 3, France Editor-in-Chief, International Journal of Production Research (IJPR)

Dr. Ali Siadat Full Professor Laboratoire de Conception, Fabrication Commande Arts et Métier Paris Tech Centrede, Metz, France

Dr. Roel Leus Professor of Operations Research KU Leuven Leuven, Belgium

## 4:00 - 6:00, FRIDAY, July 4

Onsite Room 3

Session Chair: Mira Chitt, Mechanical Engineering Department, Global College of Engineering and Technology, Muscat, Oman

## Sustainability, Green Systems and Energy

ID 230 A Sustainable Operations Management Model for Manufacturing Improvement Initiatives in South Africa: [Five-capital framework perspective]

Eric Amankwa, Department of Operations Management, Faculty of Management Studies, University of South Africa, Pretoria, South Africa

# ID 239 Integration of Water Desalination and Power Generation using salinity gradient solar ponds (SGSP) hybrid systems and solar thermal systems (STS) in Oman

Mira Chitt, Mechanical Engineering Department, Global College of Engineering and Technology, Muscat, Oman

## ID 269 Examination of Contingency Factors in Circular Business Model Implementation in Manufacturing Industry -A Systematic Literature Review

Richard Asante and Aurora Dimache, School of Engineering, Atlantic Technological University, Galway, Ireland Vicky O'Rourke, Faculty of Business, Atlantic Technological University, Letterkenny, Ireland Graham Heaslip, Full Professor of Supply Chain, School of Engineering, Atlantic Technological University, Galway, Ireland George Onofrei, School of Engineering, Atlantic Technological University, Letterkenny, Ireland

#### ID 277 Innovations in Green Hydrogen Production for a Sustainable Future through Oman Vision 2040

Said Al Shaqri and Mira Chitt, Mechanical Engineering Department, Global College of Engineering and Technology, Muscat, Oman

#### 4:00 - 6:00, FRIDAY, July 4

**Onsite Room 4** 

Session Chair: Sepideh Abolghasem, California State University of Northridge, United States

## Lean Six Sigma and Operations Excellence

ID 219 Optimizing Industrial Engine Testing: Unveiling Operational Efficiency with SMED Techniques for Changeover Time Reduction Ved Prabha Toshniwal, Institute of Business Management, GLA University, Mathura, India

Jeetesh Sharma, Institute of Business Management, GLA University, Mathura, India

Murari Lal Mittal, Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur, India

Makkhan Lal Meena, Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur, India

#### ID 287 Reduction of Threading Defects in Shaft Manufacturing Using Six Sigma DMAIC Methodology

Shahbaz Ansari, Graduate Student, Manufacturing Systems Engineering and Engineering Management, California State University of Northridge, United States

Nikhil Naik, Graduate Student, Manufacturing Systems Engineering and Engineering Management, California State University of Northridge, USA Sepideh Abolghasem, Associate Professor of Manufacturing Systems Engineering and Management, California State University of Northridge, United States

# ID 147 Effectiveness of Household Collection and Disposal of E-Waste in National Capital Region, Philippines Mark Anthony Canay, Mapua University, Philippines

ID 305 A SWOT Analysis of Kaizen Implementation in a Developing Country: A Case Study of Botswana Manufacturing Plants Robert O. K. Monageng and Kobamelo Mashaba, Mechanical Engineering Department, University of Botswana (UB), Gaborone, Botswana Poloko Thobega, Productivity and Quality Department, Botswana National Productivity Centre (BNPC), Gaborone, Botswana

ID 405 Reducing Delays and Failures in Delivery Services through Six Sigma approach and Digital Solutions
Sadeem AlQahtani, Yasmeen Alawadhi, Retaj Altamimi, Danah Alajmi, Raghad Alajmi and Oumayma Hamlaoui, College of Engineering and Technology, American University of the Middle East, Kuwait

#### 4:00 - 6:00, FRIDAY, July 4

**Onsite Room 5** 

Session Chair: Magsood Sandhu, College of Business and Economics, United Arab Emirates University, Al Ain, UAE

## **Engineering Management and Project Management**

ID 152 'Flexible' Project Management: A guideline to forming, managing and leading student teams for technical projects
Efstratios Rigas, Thomas Kalampoukas, Athina Theochari, Konstantinos Giotis, Evangelos Ch. Tsirogiannis, Christos Belogiannis, Panagiotis
Kardaras, Antonis Spanos and Michalis Diakonikolis, Greece

# ID 236 Proactive Evaluation of Mechanical Stresses in Steel Pipelines using the Non-Invasive Magnetic Tomography Method at Rand Water: A Strategy to Reduce Non-Revenue Water

Didier Ilunga, PhD Student and Senior Pipeline Engineer, Dept. Of Pipeline Asset Management, Rand Water, Johannesburg, South Africa Danny Kuya, Mogan Padayachee and Aubrey Nxumalo, Dept. Of Innovation and New Technologies/ Strategy Asset Management, Rand Water, Johannesburg, South Africa

## ID 248 Driving Project Excellence: Mindful Leadership and Knowledge Dynamics in Fostering Project Performance. Perspective from Pakistan

Muhammad Shoaib, Iqbal and Professor Shih Ping, Ho, Ph.D. Student and Professor, Department of Civil Engineering, Construction and Management Division, National Taiwan University, Taipei, Taiwan

Nosheen Qadeer, Department of Economics and Management, Tomas Bata University, Zlín, Czech Republic

## ID 388 Building Information Modeling (BIM) to Enhance Stakeholder Satisfaction in Architecture, Engineering, and Construction (AEC) Projects

Maqsood Sandhu, Department of Marketing and Entrepreneurship, College of Business and Economics, United Arab Emirates University, Al Ain, UAE

Afshan Naseem, Asjad Shahzad, Yasir Ahmad, and Asiya Siddiq, Department of Engineering Management, National University of Sciences and Technology, Islamabad, Pakistan

## 2:00 - 6:00, FRIDAY, July 4

**Onsite Room 6** 

## **Continuation of Entrepreneurship and Innovation Workshop**

Professor Don Reimer, Lawrence Technological University, Michigan, USA

4:00 - 6:00, FRIDAY, July 4

Zoom Room 7

Session Chairs: Jack Su, Anderson School of Management, University of New Mexico, Albuquerque, New Mexico, USA Dr. Nazrul Islam, IEOM Canada

## **Sustainability and Manufacturing**

#### ID 167 Examining Greenwashing Through the Lens of the Theory of Planned Behavior

Jack Su, Associate Professor, Anderson School of Management, University of New Mexico, Albuquerque, New Mexico, USA Wayne Fu, Associate Professor, College of Business, University of Michigan-Dearborn, 19000 Hubbard Drive, Dearborn, Michigan, USA

ID 235 Strategic Maintenance Practices and Sustainability: A Theoretical Framework Integrating TPM, RBV, and the Triple Bottom Line Mammolele P. Malomane, PhD Student, Graduate School of Engineering Management, Department of Management, University of Johannesburg, Johannesburg, South Africa

Chuks Medon, Post Doctoral Research Fellow of College of Science Engineering and Technology, Department of Digital Business, University of South Africa (UNISA), Johannesburg, South Africa

John-Harm Pretorius, Full Professor of Post Graduate School of Engineering Management, Department of Management, University of Johannesburg, Johannesburg, South Africa

#### ID 392 Critical Enablers of Battery Leasing in Indian Electric Vehicle Battery Infrastructure

Rudra Prakash Pradhan, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB- 721302, India Ann Mary Varghese, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB- 721302, India Avinash Chauhan, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB- 721302, India Roopa Raju, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB- 721302, India Deep Choudhury, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB- 721302, India

#### ID 401 A Network Infrastructure Design Implementation for JPS Interior Designs

Sean Alester C. Ocampo, Jonathan Niel G. Banawis, Benedict M. Guarin and Adriane Brent S. Castro, Bachelor of Science in Information Technology, College of Computer Studies, Angeles University Foundation, Angeles City, Philippines

ID 458 Enhancing Textile Finishing Processes: A Comprehensive Framework Implementation and Impact Analysis
Faris Alrefaei, Abdullah Alsaadi and Ramzi Alahmadi, Department of Industrial Engineering, Taibah University, Madinah, Saudi Arabia

#### ID 460 Detecting Employees at Risk of Leaving with Prediction Models Based on Machine Learning Algorithms

Carlos Hernández and Valentina Cabezas, Departamento de Procesos Industriales, Universidad Católica de Temuco, Temuco, Chile

#### ID 393 Waste to Wattage: Enablers of Battery Circularity in India's Electric Vehicle Landscape

Rudra Prakash Pradhan, Ann Mary Varghese, Himanshu Chandra, Akanksha Jaiswal and P. Vanita, Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur, WB, India

#### ID 247 Dry Flue Gas Desulphurization using NaHCO<sub>3</sub> and Na<sub>2</sub>CO<sub>3</sub> Sorbents in a Fixed Bed Reactor

Lawrence Koech and Kasturie Premlall, Department of Chemical, Metallurgical and Materials Engineering, Tshwane University of Technology Pretoria, South Africa

July 4, 2024 (Friday) - Session: 7:00 – 10:00 pm

Conference Awards Ceremony and Dinner at a Chinese restaurant

# 9th European IEOM Conference

Derby, UK, July 7-9, 2026 Host and Venue: University of Derby, UK

Conference Chair:

## **Prof. Jose Arturo Garza-Reyes**

Professor of Operations Management
Head of the Centre for Supply Chain Improvement
College of Business, Law and Social Sciences
The University of Derby
Kedleston Road Campus
Derby, DE22 1GB, UK

## **IEOM Student Chapters around the World**

#### Algeria

Adrar University

- Queensland University of Tech., Brisbane
- **UNSW-Canberra**
- University of Melbourne
- University of Wollongong
- University of Adelaide

#### Bahrain

University of Bahrain

#### Bangladesh

- Ahsanullah University of Sci & Tech (AUST)
- Bangladesh Institute of Management (BIM)
- Bangladesh University of Textiles (BUTEX)
- 12. CUET
- 13. Daffodil International University (DIU)
- DUET, Gazipur
- European University of Bangladesh
- International Islamic University of Chittagong 16.
- 17.
- Jessore University of Science and Technology 18.
- Khulna University (KU) 19.
- Khulna University of Eng and Tech (KUET) 20.
- Military Institute of Science and Technology
- National Institute of Textile Eng &Res (NITER)
- Rajshahi University (RU)
- SÚST 24.
- University of Chittagong 25
- World University Bangladesh (WUB) 26.
- BAUST
- American International University-Bangladesh 28. (AIUB)
- 29. **BGMEA University of Fashion and Technology** (BUFT)
- IUB Independent University, Bangladesh

31. Universidad Católica Boliviana

32. University of Botswana

- 33. Federal University of Sao Carlos (UFSCar)
- Federal University of Santa Catarina (UFSC) University of Sao Paulo (USP) Sao Carlos
- Federal Institute of Sao Paulo, Sorocaba
- FACENS University, Sorocaba

#### Canada

- Concordia University
- Humber Institute of Tech and Adv Learning
- Polytechnic Montreal
- University of New Brunswick at Fredericton
- University of Waterloo
- University of Windsor

- 44. Fundación Univ. Tecn. Comfenalco, Cartagena,
- University of Rosario, Bogota
- University of Quindio
- Universidad de San Buenaventura, Cali, Valle
- Institución Universitaria Colegios de Colombia
- Escuela Colombiana de Ingeniería Julio
- Universidad Católica de Colombia 50.
- Universidad Santo Tomás de Aquino
- Fundación Universitaria Internacional de La 52. Rioja
- Universidad América
- Universidad Militar Nueva Granada (UMNG)
- Universidad Cooperativa de Colombia (UCC)
- Universidad del Norte
- Corporación Universitaria Minuto de Dios -UNIMINUTO
- Fundación Universitaria de Popayán
- Universidad Nacional Abierta y a Distancia (UNAD)

#### Costa Rica

60. University of Costa Rica

#### Czech Republic

61. University of West Bohemia, Pilsen

- **Technical University of Ambato**
- Universidad San Francisco de Quito

#### Egypt

- Zagazig University 64.
- Favoum University 65
- British University in Egypt

#### Ethiopia

- Bahir Dar Institute of Technology
- Addis Ababa University Institute of Technology
- Mekelle University

70. University of Vaasa

- **IESEG School of Management**
- 72. Lorraine University, Metz

Technical University Applied Sciences Augsburg

#### Ghana

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

#### Greece

77. Accra Technical University

78. Université Quisqueva

#### India

- College of Eng and Tech, Bhubaneswar, Odisha, India
- College of Engineering Guindy, Chennai
- Guru Nanak Dev Engineering College
- Pandit Dendayal Petroleum Univ., Gujrat P.D.A. College of Engineering, Gulbarga
- Vellore Institute of Technology
- Vidya Jyothi Institute of Technology, Hyderabad
- Universal College of Eng & Tech (UCET), Guntur
- National Institute of Technology (NIT), 87 Warangal
- Jawaharlal Nehru Technological University Hvderabad
- 89 IITS. India
- Birla Institute of Tech & Sciences (BITS Pilani) 90
- Amrita School of Business Bangalore
- Amrita school of Arts and Sciences, Mysuru
- Amrita School of Business, Coimbatore Aligarh Muslim University, Aligarh
- Mahant Bachittar Singh College Eng & Tech,
- Baba Banda Singh Bahadur Eng College
- Ramaiah University of Applied Sciences
- Nawab Shah Alam Khan College Eng & Tech
- Global Institute Of Eng and Technology, Hyderabad
- 100. VNR Vignana Jyothi Institute of Eng and Technology
- 101. Siddhartha Institute of Engineering & Technology 102. Osmania Üniversity – The University College of
- 103. VJTI Mumbai Veermata Jijabai Technologic.
- Institute 104. BML Munjal University, Gurugram, India

Narsapur

- 105. AKTU University, Kanpur, India 106. Mufakkhamjah College of Eng. and Tech, Hyderabad
- Methodist College of Engineering and Technology
- 108. Vardhaman College of Engineering
- 109. Dr B R Ambedkar National Institute of Technology, Jalandhar

110. B. V. Raju Institute of Technology, Vishnupur,

- 111. Anjuman College of Engineering and . Technology
- 112. Bharatiya Eng. Science & Technology Innovation University, (BESTIU), Gownivaripalli, Gorantla, Andhra Pradesh
- 113. HITAM Hyderabad Institute of Technology and Management
- 114. JNTUH University College of Management Hyderabad, JNTUH
- 115. Siddaganga Institute of Technology, Tumakuru, Karnataka

#### Indonesia

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

- Iran
- 136. MehrAstan University, Guilan 137.
- University of Eyvanekey Technical and Vocational University (TVU) 138
- 139. University of Tehran

140. Babylon University

Italy

- Sapir Academic College
- Shamoon College of Engineering (SCE),
- University of Bologna University of Salento 144
- Japan 145. Ashikaga University

#### 146. Gunma University

Jordan 147. Hashemite University

148. Kenyatta University, Nairobi

149.

Libya

## 150. Libyan Academy

- Malavsia
- Universiti Malaysia Sabah (UMS) Universiti Putra Malaysia (UPM)
- Universiti Teknologi Malaysia (ÚTM)

Gulf University of Science and Technology

Universiti Tun Hussein Onn Malaysia (UTHM) Universiti Utara Malaysia (UUM) 155.

# University of Malay (ÚM)

156.

- Mexico
- Instituto Politécnico Nacional (IPN), Mexico Universidad del Caribe, Cancun
- Tecnológico de Monterrey, Campus Monterrey Universidad Industrial de Santander
- Universidad Iberoamericana Universidad de Guanajuato

- Akhawayn University
- Ecole Mohammadia d'Ingénieurs (EMI)

## **IEOM Student Chapters around the World**

University of Zambia

Copperbelt University

Evelyn Hone College

**High School Chapters** 

USA

University of Zimbabwe, Harare

Harare Institute of Technology (HIT)

Women's University in Africa (WUA)

Arongghata, Khulna, Bangladesh

Chinhoyi University of Technology (CUT)

Bay Area of San Francisco & San Jose, CA

Ironwood High School, Glendale, Arizona,

National University of Science and Technology

273.

276

Zimbabwe

- 165. Sidi Mohamed Ben Abdellah University of Fez
- 166. N. School of Appl Sci. Kenitra, Ibn Tofail Univ
- 167. Ecole Supérieure De Technologie, Fez
- 168. INPT

#### Mozambique

169. Eduardo Mondlane University

#### Namibia

170. National Univ. of Sci. and Tech. in Windhoek

#### Nepal

- 171. Kathmandu University
- 172. Tribhuvan University

#### Nigeria

- 173. Covenant University
- 174. University of Ibadan
- 175. University of Nigeria, Nsukka
- 176. University of Benin
- 177. Olabisi Onabanjo University

#### Oman

- 178. SQU Sultan Qaboos University
- 179. MEC Middle East College
- GCET Global College of Engineering and Technology

#### Pakistan

- Dawood University of Eng and Technology, Karachi
- 182. Government College University Faisalabad
- Mehran University of Eng and Tech, Jamshoro, Sindh
- Riphah International University, Lahore Campus
- University of Engineering and Technology, Lahore
- 186. UOT Nowshera
- 187. Information Technology Univ. of the Punjab, Lahore
- 188. Sindh Institute of Management & Technology (SIMT), Karachi
- NED University of Engineering & Technology, Karachi

#### Papua New Guinea

190. Papua New Guinea University of Technology

#### Paraguay

- 191. National University of Asuncion
- 192. Universidad del Cono Sur de las Américas
- 193. Colegio Técnico Nacional, Asuncioón,

#### Peru

- 194. National Univ of San Antonio Abad, Cusco
- 195. Universidad de Lima (ULima)
- Universidad Peruana de Ciencias Aplicadas (UPC)
- 197. Universidad Ricardo Palma (URP)
- 198. Pontificia Universidad Católica del Perú (PUCP)
- 199. Universidad Privada del Norte (UPN)
- 200. Universidad Continental (UContinental)
- 201. Universidad de Ingeniería y Tecnología (UTEC)
- 202. Universidad Nacional de Ingeniería (UNI)
- 203. University of San Martin de Porres (USMP)
- Universidad Nacional Tecnológica de Lima Sur

#### **Philippines**

- 205. Bulacan State University, Malolos City, Bulacan
- 206. LPU Laguna
- 207. Mapua University
- 208. De La Salle University (DLSU) Manila
- 209. Adamson University
- 210. CEBU Technological University
- 211. University of San Jose-Recoletos
- 212. Quezon City University

#### Portugal

- ISEL Instituto Superior De Engenharia de Lisboa
- 214. FCT NOVA

#### Qatar

215. Qatar University

#### Saudi Arabia

- 216. Alfaisal University
- 217. Effat University
- 218. King Abdulaziz University (KAU)
- 219. King Abdulaziz University, Rabigh
- 220. King Fahd Univ of Petroleum and Minerals (KFUPM)
- 221. King Khalid University, Abha
- 222. King Saud University (KSU)
- 223. Umm Al-Qura University (UQU)
- 224. Princess Nourah University (PNU)
- 225. Prince Sattam Bin Abdulaziz University
- 226. Prince Sultan University (PSU)
- 227. Taibah University
- 228. University of Tabuk
- 229. Taibah University
- 230. University of Business and Technology
- 231. King Khalid University, Abha
- 232. University of Bisha
- 233. Taif University
- 234. Al-Yamamah University

### Singapore

235. SUSS

#### South Africa

- 236. Durban University of Technology (DUT)
- 237. Tshwane University of Technology (TUT)
- 238. University of Johannesburg (UJ)
- 239. University of South Africa (UNISA)
- 240. Vaal University of Technology (VUT)

#### Sri Lanka

- 241. University of Kelaniya
- 242. University of Peradeniya

#### Sudan

243. Sudan University of Science and Tech Khartoum

#### Thailand

- 244. Chulalongkorn University, Bangkok
- 245. Chiang Mai University

#### Turkey

- 246. Turkish-German University
- 247. Uskudar University

#### UAE

248. University of Science & Technology of Fujairah

#### UK

- 249. University of Derby
- 250. University of the West of England, Bristol

## USA

- 251. Central Connecticut State University
- 252. Eastern Michigan University
- 253. Lawrence Technological University, Michigan
- 54. University of the District of Columbia
  Indiana State University
- 255. Indiana State University256. Florida Polytechnic University
- 257. Buffalo State College
- 258. Southern Arkansas University
- 259. Western Michigan University
- 260. Loyola University Chicago
- 261. Minnesota State University, Mankato262. Central State University
- 263. University of Central Florida
- 264. Minnesota State University, Mankato265. University of Texas San Antonio (UTSA)
- 266. Capitol Technological University
- 267. Frostburg State University
- 68. Business School of Southern Arkansas University

#### Venezuela

269. Catholic University Andrés Bello, Caracas

#### Vietnam

270. CFVG, Ho Chi Minh City, Vietnam

#### Zambia

IEOM Paris Conference July 2-4, 2025



# DISTRIBUTION & LOGISTICS TOP 3 SPEND CATEGORY IN THE ENTERPRISE





# **IEOM Index Publication Database:**

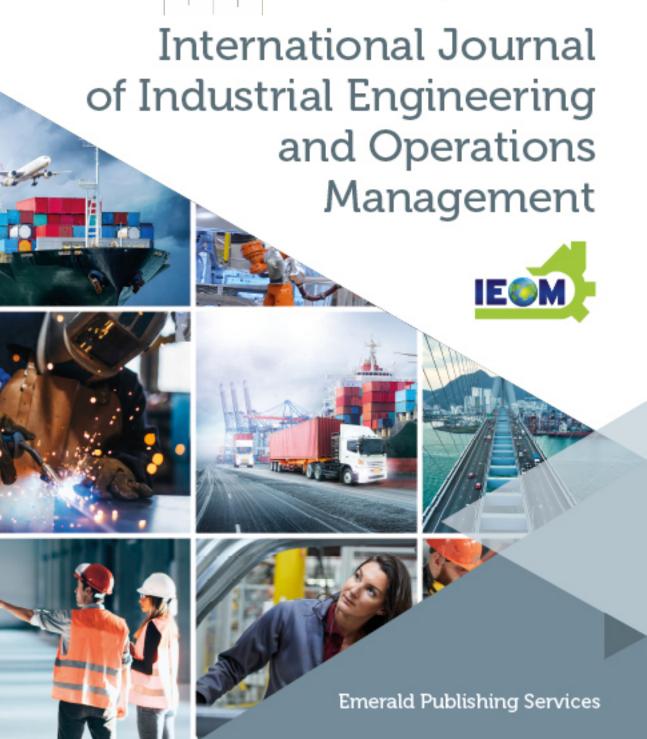
https://index.ieomsociety.org/

- 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.ieomsocietv.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
  - o EBSCO









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 Society**

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

# **Upcoming IEOM Conferences**



6<sup>th</sup> Asia Pacific Conference on **Industrial Engineering and Operations Management** August 5-7, 2025, Bali, Indonesia **IEOM Society** Venue: Warmadewa University











2<sup>nd</sup> World Congress on Industrial Engineering & **Operations Management** 









3rd GCC International Conference on **Industrial Engineering & Operations Management** 

Tabuk, Saudi Arabia, Dec. 1-3, 2025 **IEOM Society** Host & Venue: University of Tabuk







7<sup>th</sup> African International Conference on **Industrial Engineering and Operations Management** Cape Town, South Africa, May 13-15, 2026 **IEOM Society Host and Venue: CPUT, Cape Town** 







11th North American Conference on **Industrial Engineering and Operations Management** Milwaukee, Wisconsin, USA, June 9-11, 2026







16th International Conference on **Industrial Engineering and Operations Management** 

June 23-26, 2026, Ankara, Turkey IEOM Society Host and Venue: Gazi University, Ankara









9<sup>th</sup> European Conference on **Industrial Engineering & Operations Management** Derby, UK, July 7-9, 2026 **IEOM Society** Host: University of Derby







**Industrial Engineering and Operations Management Society International** 

IEOM Society International, 21411 Civic Center Dr., Suite 205, Michigan, USA. www.ieomsociety.org