5th North American International Conference on Industrial Engineering and Operations Management

August 10-14, 2020
Detroit, Michigan, USA

IEOM Society International

"Achieving and Sustaining Operational Excellence"

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Industrial Engineering and Operations Management Society International
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Industrial Engineering and Operations Management Society International
21415 Civic Center Dr., Suite 217, Southfield, Michigan 48076, USA, p. 248-450-5660, e. info@ieomsociety.org

Welcome to the 5th North American IEOM Society Conference
Detroit, Michigan, USA

To All Conference Attendees:

We want to welcome you to the 5th North American IEOM Society Conference in Detroit, Michigan, USA. 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 significant trends in industrial engineering and operations management. There were more than 550 papers/abstracts submitted from 51 countries, and after a thorough peer review process, approximately 400 have been accepted. The program includes many cutting-edge topics of industrial engineering and operations management. The theme of the conference is "***Operational Excellence in the era of Industry 4.0***".

Our keynote speakers:

- Donna Bell, Global Director, Technology and Features Strategy and Planning, Ford Motor Company, Dearborn, Michigan (Opening Keynote)
- Jiju Antony, Professor of Quality Management, School of Social Sciences, Edinburgh Business School, Operations and Logistics Group, Heriot-Watt University, Edinburgh, Scotland, UK
- Raj Kawlra, Director, Global Manufacturing Methods and Measurements, Fiat Chrysler Automobiles (FCA), Auburn Hills, Michigan
- Seth Guikema, Professor, Department of Industrial and Operations Engineering and Department of Civil and Environmental Engineering, University of Michigan, Ann Arbor, Michigan, USA and President of Society of Risk Analysis
- Cheryl Thompson, Founder, and CEO, CADIA - Center for Automotive Diversity, Inclusion & Advancement, Detroit, Michigan
- Jeffrey Abell, Director, Manufacturing Systems Research Lab, Chief Scientist for Global Manufacturing, Global Research & Development, General Motors Company, Warren, Michigan
- Kannan Govindan, Professor of Operations & Supply Chain Management and Head of the Center for Sustainable Supply Chain Engineering, University of Southern Denmark
- Maria Jesus Saenz, Executive Director, MIT SCM Blended Master's Program AND Director, MIT Digital Supply Chain Transformation, MIT Center for Transportation and Logistics, Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA
- Chris Stevens, VP of Industry Verticals, Siemens Digital Industries Software, Troy, Michigan
- John Burns, Director of Sales, Automotive and Transportation, Siemens Digital Industries Software, Troy, Michigan
- Noman Husain, Founder, TRANSFORMability, Detroit, Michigan, USA

The 18th IEOM Society Global Engineering Education session will feature distinguished speakers who will discuss the workforce readiness and engineering education challenges and opportunities. Global Business Management Education has been added to the program. Industry 4.0 will showcase major topics including IoT, AI, data analytics, iCloud, cybersecurity, automation, digital manufacturing, and MSV. Industry Solutions will showcase the best industry practices as well as shared experiences. Six panel sessions are planned in the area of Industry 4.0, Global Engineering Education, Supply Chain and Logistics, Lean Six Sigma, Women in Industry and Academia, and Healthcare Improvement.

The IEOM Society would like to express our sincere appreciation to our sponsors, university partners, organization partners, exhibitors, authors, reviewers, keynote speakers, panelists, track chairs, advisors, the local committee, and the many volunteers. They have given so much of their time and talent to make this unique international conference an overwhelmingly successful event.

Our best wishes to all conference participants for a successful and enjoyable event.

Enjoy the conference!

Dr. Muhammad Sohail Ahmed
Conference Co-Chair
Professor, Engineering Management
School of Engineering
Eastern Michigan University
Ypsilanti, MI, USA

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

Dr. Leslie Monplaisir
Conference Co-Chair
Professor and Chair, Department of Industrial and Manufacturing Engineering
Wayne State University
Detroit, MI, USA

Dr. Wilkistar Otieno
Conference Co-Chair
Associate Professor and Chair
Industrial & Manufacturing Engineering
University of Wisconsin-Milwaukee, USA

Conference Program

Zoom Meeting Room 1 Link: TBA
Zoom Meeting Room 2 Link: TBA
Zoom Meeting Room 3 Link: TBA

Zoom Links will be sent to registered particpants only. Please pay registration fee to get zoom links.

Day 1 – August 10, 2020 (Monday)

8:00 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
9:15 am – Break			
Keynote Speakers - Zoom Meeting Room 1			
9:30 am – Conference Co-Chair Remarks – **Dr. Leslie Monplasir**, Chair and Professor, Industrial and Systems Engineering Department, Wayne State University 9:40 am – Opening Keynote Speaker: **Dr. Donna Bell**, Global Director, Technology and Features Strategy and Planning, Ford Motor Company, Dearborn, Michigan 10:20 am – Keynote Speaker II: **Dr. Jiju Antony**, Professor of Quality Management, School of Social Sciences, Edinburgh Business School, Operations and Logistics Group, Heriot-Watt University, Edinburgh, Scotland, UK			
11:00 am – Break			
11:15 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
12:45 pm – BREAK			
1:00 pm – **Industry 4.0**	Zoom Meeting Room 1		
2:00 pm – Break			
2:15 pm – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
3:45 pm – Break			
4:00 pm – **Global Engineering Education**	Zoom Meeting Room 1		
5:00 pm – Break			
5:15 pm – **Panel Session – Lean Six Sigma**	Zoom Meeting Room 1		
6:45 pm – Break			
7:00 pm – 10:00 pm Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3

Day 2 – August 11 (Tuesday)

8:00 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
9:15 am – Break			
Keynote Speakers - Zoom Meeting Room 1			
9:30 am – Industry Co-Chair Remarks – **Dr. Saso Krstovski,** MBB, Lean Manufacturing Coach /Six Sigma Master Black Belt, Van Dyke Transmission Plant, Ford Motor Company, Michigan, USA 9:40 am – Keynote Speaker III: **Dr. Raj Kawlra**, Director, Global Manufacturing Methods and Measurements, Fiat Chrysler Automobiles (FCA), Auburn Hills, Michigan 10:20 am – Keynote Speaker IV: **Dr. Seth Guikema**, Professor, Dept. of Industrial and Operations Engineering and Dept. of Civil and Environmental Engineering, University of Michigan, Ann Arbor and President of Society of Risk Analysis			
11:00 am – Break			
11:15 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
12:45 pm – BREAK			
1:00 pm – **Industry 4.0**	Zoom Meeting Room 1		
2:00 pm – Break			
2:15 pm – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
3:45 pm – Break			
4:00 pm – **Global Engineering Education**	Zoom Meeting Room 1		
5:00 pm – Break			
5:15 pm – **Panel Session – Diversity and Inclusion**	Zoom Meeting Room 1		
6:45 pm – Break			
7:00 pm – 10:00 pm Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3

Day 3 – August 12 (Wednesday)

8:00 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
9:15 am – Break			
Keynote Speakers - Zoom Meeting Room 1			
9:30 am – Conference Co-Chair Remarks – **Dr. Wilkistar Otieno,** Associate Professor and Chair Industrial & Manufacturing Engineering, University of Wisconsin-Milwaukee, USA 9:40 am – Keynote Speaker V: **Cheryl Thompson**, Founder and CEO, CADIA – Center for Automotive Diversity, Inclusion & Advancement, Detroit, Michigan 10:20 am – Keynote Speaker VI: **Dr. Jeffrey Abell**, Director, Manufacturing Systems Research Lab, Chief Scientist for Global Manufacturing, Global Research & Development, General Motors Company, Warren, Michigan			
11:00 am – Break			
11:15 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3

12:45 pm – BREAK			
1:00 pm – **Global Engineering Education**	Zoom Meeting Room 1		
2:00 pm – Break			
2:15 pm – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
3:45 pm – Break			
4:00 pm – **Global Engineering Education**	Zoom Meeting Room 1		**High School STEM**
5:00 pm – Break			
5:15 pm – **Industry Solutions**	Zoom Meeting Room 1		**High School STEM**
6:45 pm – Break			
7:00 pm – 10:00 pm Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3

Day 4 – August 13 (Thursday)

8:00 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
9:15 am – Break			
Keynote Speakers - Zoom Meeting Room 1			
9:30 am – Conference Co-Chair Remarks – **Dr. Muhammad Sohail Ahmed**, Professor, Engineering Management, School of Engineering, Eastern Michigan University, Ypsilanti, MI, USA 9:40 am – Keynote Speaker VII: **Dr. Kannan Govindan**, Professor of Operations & Supply Chain Management and Head of the Center for Sustainable Supply Chain Engineering, University of Southern Denmark 10:20 am – Keynote Speaker VIII: **Dr. Maria Jesus Saenz**, Executive Director, MIT SCM Blended Master's Program AND Director, MIT Digital Supply Chain Transformation, MIT Center for Transportation and Logistics, Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA			
11:00 am – Break			
11:15 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
12:45 pm – BREAK			
1:00 pm – **Industry 4.0**	Zoom Meeting Room 1		
2:00 pm – Break			
2:15 pm – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
3:45 pm – Break			
4:00 pm – **Global Business Management Education**	Zoom Meeting Room 1		
5:00 pm – Break			
5:15 pm – **Global Organizational Excellence Assessment**	Zoom Meeting Room 1		
6:45 pm – Break			
7:00 pm – 10:00 pm **Global Engineering Education**	Zoom Meeting Room 1		
7:00 pm – 10:00 pm Technical Presentations		Zoom Meeting Room 2 Zoom Meeting Room 4	Zoom Meeting Room 3

Day 5 – August 14 (Friday)

8:00 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
9:15 am – Break			
Keynote Speakers - Zoom Meeting Room 1			
9:30 am – Conference Industry Co-Chair Remarks - **Steven Sibrel**, Senior Supplier Quality Manager, Harman International, Novi, Michigan, USA 9:40 am – Keynote Speaker IX: • **Chris Stevens**, VP of Industry Verticals, Siemens Digital Industries Software, Troy, MI • **John Burns**, Director of Sales, Automotive and Transportation, Siemens Digital Industries Software, Troy, MI 10:20 am – Keynote Speaker X: **Noman Husain**, Founder, TRANSFORMability, Detroit, Michigan, USA			
11:00 am – Break			
11:15 am – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
12:45 pm – BREAK			
1:00 pm – **Global Business Management Education**	Zoom Meeting Room 1		
2:00 pm – Break			
2:15 pm – Technical Presentations	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
3:45 pm – Break			
4:00 pm – 6:00 pm **Virtual Awards Ceremony**	Zoom Meeting Room 1		
5:15 pm – Technical Presentations		Zoom Meeting Room 2	Zoom Meeting Room 3
6:45 pm – Break			
7:00 pm – 10:00 pm Technical Presentations	Zoom Meeting Room 1 Zoom Meeting Room 4	Zoom Meeting Room 2	Zoom Meeting Room 3

Keynote Speakers

Opening Keynote I - Tuesday, August 10 2020, 9:40 – 10:20 am

Conference Co-Chair Remarks: Monday, August 10, 2020, 9:30 – 9:40 am
Dr. Leslie Monplaisir, Professor and Chair, Department of Industrial and Manufacturing Engineering, Wayne State University

Opening Keynote I: Monday, August 10, 2020, 9:40 – 10:20 am

Dr. Donna Bell
Global Director
Technology and Features Strategy and Planning
Ford Motor Company
Dearborn, Michigan

Dr. Donna Bell is Global Director, Technology and Features Strategy and Planning at Ford Motor Company, a $150B company. Collaborating with key stakeholders, Donna establishes and communicates customer driven strategies that increase corporate growth in areas such asconnectivity, artificial intelligence (AI), driver assist technology (DAT), and robotics.

Previously, Donna served as the CTO Chief of Staff at Ford, where she improved research processes, managed strategic university alliances, and enhanced Ford's STEM strategy. She led strategic partnerships and external relationships, including Ford's involvement in US CAR (U.S. Council for Automotive Research).

Donna also served as research operations director at Ford's Palo Alto Innovation Labs. Her transformational leadership was important in building the new facility, acquiring the highestcaliber talent, managing a multi-million dollar operating budget, creating a culture of innovation, and connecting new technologies and innovations that were created in Silicon Valley to Ford's winning portfolio. Trained in design thinking, Donna was instrumental in promoting and delivering transformational technologies including AI, Machine Learning, Autonomous Driving Technology including LiDAR, in-vehicle infotainment (IVI), and Connectivity.

From 2014 to 2017, Donna served as the electrical Global Product Development (PD) Quality manager at Ford. She collaborated with product development to ensure designs delivered revenue generating customer experiences. Through Donna's continuous improvement experience and using proven quality tools such as failure mode avoidance, quality function deployment, and customer driven quality design electrical quality improved by more than 35%.Bell's inspirational leadership led to the electrical organization achieving best in class quality for Lincoln vehicles multiple times, and Ford being recognized by the 2017 JD Power Initial Quality Study for overall quality improvement.

Donna's proven delivery and technical excellence led to her receiving multiple patents and delivering many revenue generating 1st to Ford technologies including the award-winning Sync infotainment system, the fuel saving stop-start technology, and the first-to-industry MyEnergi Lifestyle project, in conjunction with Georgia Tech, projected a 60% energy cost savings and CO2 improvements of over 8,000 kg by incorporating key energy efficient solutions into an average U.S. home.

Donna's involvement in the community is extensive and involves creating programs that educate and develop students in science, technology, engineering, and mathematics (STEM). She has held multiple leadership positions in professional organizations including National Society of Black Engineers, Society of Women Engineers, and Ford's first employee resource group, FAAN (Ford African Ancestry Network).

Donna holds a Bachelor of Science degree in Electrical Engineering from Lawrence Technological University (Southfield, MI), Master of Science degrees in Electronics and Computer Control Systems and Engineering Management, and a PhD in Industrial and Systems Engineering all from Wayne State University (Detroit, MI).

Opening Keynote II: Monday, August 10, 2020, 10:20 – 11:00 am

Dr. Jiju Antony
Professor of Quality Management
School of Social Sciences, Edinburgh Business School
Operations and Logistics Group
Heriot-Watt University
Edinburgh, Scotland, UK

Editor of International Journal of Lean Six Sigma
Associate Editor of TQM and Business Excellence(Taylor and Francis)
Associate Editor of TQM Journal (Emerald)
Associate Editor of Quality in Education (ASQ)

Professor Jiju Antony is recognised worldwide as a leader in Lean Six Sigma (LSS) methodology for achieving and sustaining process excellence. He is a Professor of Quality Management and certified LSS Master Black Belt in the Edinburgh Business School at Heriot-Watt University, Edinburgh, Scotland. He has a proven track record for conducting internationally leading research in the field of Quality Management and Lean Six Sigma. Professor Antony has authored over 400 journal, conference and white papers and 10 text books. He has published over 250 papers on Six Sigma and Lean Six Sigma topics and is considered to be one of the highest in the world for the number of Six Sigma publications. Two of his papers published in 2002 entitled (Critical Success Factors for the successful implementation of Six Sigma projects in organisations (over 900 google citations) and Key Ingredients for the effective implementation of Six Sigma program (over 900 google citations)) have the highest citations making them the most referred to papers in the world in the field of Six Sigma and Continuous Improvement. He has an h-index of 79 according to Google Scholar with a total of over 14000 citations on Six Sigma and Lean Sigma

topics alone. He is currently serving as the Editor of the International Journal of Lean Six Sigma, Associate Editor of the TQM and Business Excellence Journal, Associate Editor of TQM Journal (Emerald) and Associate Editor of Quality in Education (ASQ). He is serving on the Editorial Board of six international journals. Professor Antony has worked on a number of consultancy projects with several blue chip companies such as Rolls-Royce, Bosch, Siemens, Parker Pen, Siemens, Johnson and Johnson, GE Plastics, Ford, Scottish Power, Tata Motors, Thales, Nokia, Philips, General Electric, NHS, Glasgow City Council, ACCESS, Scottish Water, Police Scotland, University Sectors and a number of Small and Medium Sized Enterprises. Professor Antony is a Fellow of the Royal Statistical Society, UK; Fellow of the Chartered Quality Institute, UK; Fellow of the Institute of Operations Management, UK; Fellow of the American Society for Quality and Fellow of the Institute of Six Sigma Professionals. He has been elected to the International Academy of Quality as an Academician this year.

Industry Co-Chair Remarks: Tuesday, August 11, 2020, 9:30 – 9:40 am
Dr. Saso Krstovski, MBB, Lean Manufacturing Coach /Six Sigma Master Black Belt, Van Dyke Transmission Plant, Ford Motor Company

Tuesday Keynote I: August 11, 2020, 9:40 – 10:20 am

Dr. Raj Kawlra
Director, Global Manufacturing
Methods and Measurements
Fiat Chrysler Automobiles (FCA)
Auburn Hills, Michigan

Dr. Raj Kawlra is Director of Global Manufacturing Methods and Measurement at Fiat Chrysler Automobiles. He has 35 years of automotive experience in concurrent engineering, advanced manufacturing engineering, quality, lean manufacturing, launching products, and manufacturing planning functions. He has had the opportunity to work in both powertrain and vehicle assembly. Over the years, he has successfully developed and implemented major strategies to drive improvements in throughput, quality, and cost.

Dr. Kawlra spent the first 16 years of his automotive career at GM Tech Center with responsibilities ranging from lead process engineer for the first "lights out" Flexible Manufacturing System in Powertrain in the late 80s to leading the development of a simple plant floor problem solving toolkit that leveraged advanced statistics and enabled GM to achieve world-class dimensional quality levels during the MY97 launch of their full size trucks at (3) plants. He also had the opportunity to work with the best lean gurus to develop GM's Global Manufacturing System and implement it for their greenfield plant that launched Cadillac CTS in CY01.

Dr. Kawlra joined Chrysler in CY01 with the responsibility to develop and implement the Black Belt program at all of their (28) plant locations. Over the years, he has held numerous leadership positions ranging from Manufacturing Quality Director to Dimensional Quality Director to Industrial Engineering Director to the Manufacturing Planning Director. Over the last 5 years, he has also led the development and implementation of World Class Technology (WCT) - application of lean principles to manufacturing engineering function that designs and implements equipment and processes for all launches - first of its kind in the industry. WCT has been successfully applied across all regions and divisions at FCA, with savings ranging from $5 to 10M for each launch. In his current role as Director of Global Manufacturing, his responsibilities include leading global benchmarking activities, setting competitive targets and driving improvements in operational business metrics, long-term manpower planning, and global data analytics strategy.

Dr. Kawlra is a Big 10 fan, having received degrees from University of Wisconsin (MS, Mech Engr), University of Illinois (MS, IE), and University of Michigan (PhD, IOE). He has a BS in Mechanical Engineering from Indian Institute of Technology. He also has an Executive Management Certification from INSEAD. Over the years he has been on the Department of Defense Oversight Committee (CY09- 11) and has served on the Advisory Board of University of Wisconsin's Industrial and Systems Engineering department (CY11-17). Dr. Kawlra served as Industrial Advisor of two doctoral students of Doctor of Engineering in Manufacturing Systems at Lawrence Technological University.

Tuesday Keynote II: August 11, 2020, 10:20 – 11:00 am

Dr. Seth Guikema
Professor
Department of Industrial and Operations Engineering and
Department of Civil and Environmental Engineering
University of Michigan
Ann Arbor, Michigan, USA
President, Society of Risk Analysis

Dr. Seth Guikema is a Professor in the Department of Industrial and Operations Engineering and the Department of Civil and Environmental Engineering at the University of Michigan as of August 2015. Prior to this, he was an Associate Professor in the Department of Geography and Environmental Engineering (DoGEE) at Johns Hopkins University. He is also an adjunct Professor II in the Department of Safety, Economics, and Planning at the University of Stavanger in Norway, and a Data Science Research Fellow at One Concern, Inc., a Silcon Valley start-up.

His academic training includes a B.S. in Civil & Environmental Engineering (Cornell University), a M.S. in Civil & Environmental Engineering (Stanford University), a M.E. by thesis in Civil Engineering (University of Canterbury in New Zealand), a Ph.D. in Management Science & Engineering with a concentration in Engineering Risk & Decision Analysis (Stanford University), and a postdoctoral research position in Civil & Environmental Engineering (Cornell University). He began his faculty career at Texas A&M University in Civil Engineering and moved to DoGEE at JHU in 2008. He received tenure at JHU in 2014 and became the Carol Linde Croft Faculty Scholar there in 2015. He moved to the University of Michigan in August 2015. Seth is currently the Area Editor for Mathematical Modeling in the journal Risk Analysis, was an Associate Editor for the ASCE Journal of Infrastructure Systems until 2018, and is on the editorial boards of the journals Reliability Engineering and System Safety and Performability Engineering. He previously completed a three-year terms on the governing Councils of the International Society for Risk Analysis and the INFORMS Decision Analysis Society.

Dr. Guikema's research is highly interdisciplinary. Much of his group's recent work is focused on the problems of urban and infrastructure resilience and sustainability in a changing climate, though areas of application are broad. It is grounded in risk analysis, particularly data-drive risk analysis and complex systems simulation. One major topic is developing, testing, and implementing risk analysis methods based in machine learning, stochastica and agent-based simulation, game theory, and decision analysis. Another strong research thrust in the group is using modern simulation methods to more fully understand the role of human behavior in the evoluation of vulnerabiltiy and risk in hazard-prone regions. This work is a combination of theory and practice, spanning from new methods development, testing, and validation to close interactions with utilities to develop and implement new methods for estimating performance and risk to infrastructure systems from disasters.

Conference Co-Chair Remarks: Wednesday, August 12, 2020, 9:30 – 9:40 am
Dr. Wilkistar Otieno, Associate Professor and Chair Industrial & Manufacturing Engineering, University of Wisconsin-Milwaukee

Wednesday Keynote I: August 12, 2020, 9:40 – 10:20 am

Cheryl Thompson
Founder and CEO of CADIA
Center for Automotive Diversity, Inclusion & Advancement
Detroit, Michigan

Cheryl Thompson is the founder of the Center for Automotive Diversity, Inclusion & Advancement (CADIA). CADIA supports Diversity and Inclusion for the Automotive Industry by providing professional development for individuals, along with resources, programs and tools that drive organizational evolution. A veteran of the automotive industry, Cheryl has over 30 years of experience at Ford Motor Company and American Axle and Manufacturing in positions ranging from skilled trades, operations, engineering and global leadership. She is trained in diversity and inclusion, career and leadership coaching and is Six Sigma trained and certified as a Black Belt. Cheryl has been recognized as a 2019 Influential Women in Manufacturing Honoree, a 2019 Corp Magazine Salute to Diversity award winner, and is the recipient of two Diversity and Inclusion Awards from Ford Motor Company. A sought-after voice and speaker in the automotive, manufacturing and aerospace & defense industries, Cheryl has performed keynote addresses, workshops and breakout sessions for a number of companies and events, including TEDx Windsor, Women in Manufacturing (WiM), the American Automotive Summit, and Society of Women Engineers (SWE).

Wednesday Keynote II: August 12, 2020, 10:20 – 11:00 am

Jeffrey Abell, Ph.D., FSME, PE
Director, Manufacturing Systems Research Lab
Chief Scientist for Global Manufacturing
Global Research & Development
General Motors Company
Warren, Michigan

Dr. Jeffrey Abell is Director and Chief Scientist of Manufacturing Systems Research at General Motors. He is responsible for manufacturing research in the company including vehicle electrification, lightweight materials processing, automation, and artificial intelligence/analytics. Previously, he was responsible for battery manufacturing research and his team played a key role in bringing the Chevy Volt advanced high power battery to production. He has successfully implemented various evolutionary based optimization methods to solve complex industrial design problems and was awarded the 2011 and 2014 General Motors Boss Kettering Awards for outstanding technical innovation. He has a Bachelor's of Mechanical Engineering degree from General Motors Institute (now Kettering University), and graduate degrees in Systems Engineering from Oakland University.

Dr. Abell has also held a number of positions in the product development and manufacturing engineering at GM, Delphi, and DaimlerChrysler, including two international assignments.

Dr. Abell is a Fellow of the Society of Manufacturing Engineers (SME) and a licensed Professional Engineer (Michigan). He has written numerous technical publications and is active in various professional societies and associations.

Conference Co-Chair Remarks: Thursday, August 13, 2020, 9:30 – 9:40 am
Dr. Muhammad Sohail Ahmed, Professor, Engineering Management, School of Engineering, Eastern Michigan University

Thursday Keynote I: August 13, 2020, 9:40 – 10:20 am

Dr. Kannan Govindan
Professor and Head, SDU Centre for Sustainable Supply Chain Engineering
Dept. of Technology and Innovation
University of Southern Denmark
Odense, Denmark
Editor-In-Chief: International Journal of Business Performance and Supply Chain Modelling
Editor-In-Chief: International Journal of Advanced Operations Management

Professor Kannan Govindan is a founder and current Head of the Center for Sustainable Supply Chain Engineering and is a Professor of Operations & Supply Chain Management, Department of Technology and Innovation, University of Southern Denmark, Odense.

In 2018 and 2019 Professor Kannan Govindan received the highly cited researcher award from Thomson-Reuters/Clarivate Analytics (one of only 204 researchers to be listed in the engineering category). He received the Fyens Stiftstidende research award for 2019. He received the High-Level Overseas Innovative Talent to Tianjin award (Under 1000 talents program for High-Level Overseas Innovative Talent experts of Tianjin Province) from Tianjin Province, China. He was awarded the Gold Medal for the best Ph.D. thesis from the former president of India. Also, he was awarded Young Alumni Achiever Award for Excellence in Academic / Research from the governor of Andhra Pradesh and Telangana. He received the International Young Scientists award from the Chinese Academy of Science, 2012–2013.

He has published more than 250 international journal articles (with total 22800 + citations and H-index of 84) in leading journals such as Nature, Omega, Journal of the Operational Research Society, Journal of Environmental management, Renewable & Sustainable Energy Reviews, European Journal of Operational Research, Journal of Cleaner Production, Computers & Industrial Engineering, Ecological Indicators, Transportation Research Part E: Logistics and Transportation Review, Transportation Research Part D: Transport and Environment, Transactions on Systems, Man, and Cybernetics Part A: Systems and Humans, European Management Journal, Computers and OR, International Journal of Production Economics and International Journal of Production Research.

Many of his papers were selected as the ESI top 1% highly cited papers or 0.1 % hot papers or identified and highlighted as the Key Scientific Article contributing to the excellence in Engineering and Environmental research. (Source: Web of Science). He was rated as 1st globally in the field of Supply Chain Management and Industry from 2009 to 2018; 2014 to 2019; 2016 to 2019, (Source : SciVal -Scopus). He was rated as 2nd among top ten contributing author in the area of green supply chain management during last 22 years (Source: Sustainable Production and Consumption Journal, 2017). He was rated as 1st among top twenty contributing author in the area of reverse logistics and closed loop supply chain management during last 23 years (Source: International Journal of Production Research, 2018). Also, his paper titled "Quantitative models for sustainable supply chain management: Developments and directions" is selected as one of the 20 trendsetting papers of the last 20 years. The selection has been made from among 14,617 articles published in EJOR until the end of 2016. He was rated as 1st among top ten contributing author in the area of sustainable supplier selection area during last 28 years (Source: Journal of Cleaner Production, 2020).

Professor Kannan Govindan has received more than 12 National and International research project grants. He also serves as an external evaluator for various research foundations/councils from countries such as Swiss, France, Romania, Finland, Norway, and Sweden. He has held various teaching and research roles in a number of European, Asian, and American universities. Currently, he is an Editor-in-Chief of the International Journal of Business Performance and Supply Chain Modelling (Inderscience), and the International Journal of Advanced Operations Management (Inderscience). In addition, he serves as associate editor of the Journal of Cleaner Production, an area Editor of INFOR: Information Systems and Operational Research, editor of Annals of Operations Research, and has served as a guest editor in journals such as European Journal of Operations Research, Computers and OR, Annals of OR, Journal of Cleaner Production, International Journal of Production Economics. Finally, he serves as an Editorial Board Member of several international journals.

His research interests include digital supply chain, industry 4.0 on supply chain, sustainable development goals, reverse logistics, closed loop supply chain, digitalized sustainable circular economy, green supply chain management, and sustainable supply chain management.

Thursday Keynote II: August 13, 2020, 10:20 – 11:00 am

Dr. Maria Jesus Saenz
Executive Director, MIT SCM Blended Master's Program
Director, MIT Digital Supply Chain Transformation
MIT Center for Transportation and Logistics
Massachusetts Institute of Technology (MIT)
Cambridge, Massachusetts, USA

Digital Supply Chain Transformation – An Empirical Research Study

Dr. Maria Jesus Saenz is the Director of the research area on Digital Supply Chain Transformation at the MIT Center for Transportation and Logistics, as Research Scientist. The primary research aims at leveraging the connections among inter-organizational business drivers when facing new collaborative paradigms in digital transformations. Such opportunities require approaches that encompass the challenges of innovation around digitalization, with organizational changes at inter-organizational level, including multidimensional collaboration, digital supply chain capabilities and digital customer value.

Dr. Saenz also serves as the Executive Director of the MIT Supply Chain Management Blended Master Program, an elite MIT degree that allows learners to combine the MITx MicroMasters credential with one+ semester at MIT.

Dr. Saenz teaches various courses at Master, PhD and Executive Education level on Digital Transformation, Supply Chain Management, Collaboration, Risks, Resilience and Project Management. Regarding her education, Dr. Saenz is certified in Participant Centered Learning by Harvard Business School. She received Cum Laude and the Outstanding Doctoral Award for her PhD in Manufacturing and Design Engineering from the University of Zaragoza, where she previously obtained her M.Sc. in Industrial Engineering, while she also studied Mathematics Sciences for several years. In 2003, she received her tenure as Associate Professor in the School of Engineering at the University of Zaragoza. In 2004, she

joined the newly-formed research institute MIT Zaragoza Logistics Center as Professor, and she has also served the Center as its Executive Director. She was also the Director of the Spanish Center of Excellence in Logistics. Dr. Saenz has also led various international research projects for the European Commission, as well as for companies on Supply Chain Management innovation, such as P&G, Carrefour, Clariant, Dell, DHL, Leroy Merlin or Caterpillar. She is co-author of more than 80 publications, including books and articles in leading international Journals. Her knowledge transfer work has received 14 awards and her research was cited in the media including MIT Sloan Management Review, Forbes, Financial Times Press or Supply Chain Management Review. She also regularly interacts with business leaders in more than 15 countries.

Industry Co-Chair Remarks: Friday, August 14, 2020, 9:30 – 9:40 am
Steve Sibrel

Friday Keynote I: August 14, 2020, 9:40 – 10:20 am

Christopher Lee Stevens
Vice President of Industry Verticals
Siemens Digital Industries Software

Chris Stevens is Vice President of Industry Verticals focused on Automotive, Transportation, Industrial Machinery, Heavy Equipment, Energy and Utilities for Siemens Digital Industries Software, a business unit of Siemens. In his current role, Stevens is responsible for sales, sales support and services delivery in the United States for these industries.

Previously, Chris had leadership responsibility for sales, sales support and services delivery for the Automotive Supplier and Heavy Equipment organization in the U.S. Prior to this role, Chris had leadership responsibility for the Global Fiat Chrysler Automobile Account for Siemens Digital Industries Software. He began his career at Siemens in 2000 as an Account Executive.

Chris began his career in the automotive industry in sales & program management for an assembly and test equipment company. He was the Director of Sales and Program Management responsible for OEM's and Tier1 Automotive Suppliers in America, Asia and Europe.

Chris has a Bachelors degree in Mechanical Engineering from Michigan State University. Chris and his wife, Leanne, reside in Rochester Hills, Michigan, with their three children.

John A. Burns
Director of Automotive and Transportation Sales
Siemens Digital Industries Software
Troy, Michigan

John Burns is Director of Automotive and Transportation Sales for Siemens Digital Industries Software, a business unit of Siemens. John is responsible for software sales for OEMs and tiered suppliers.

Previously, John was the Director, of software sales, for the Heavy Equipment, Industrial Machinery, and Specialty Vehicle Industries as well as the Director of Technical Sales for Automotive, Transportation, Heavy Equipment, Industrial Machinery, and Specialty Vehicle Industries.

John began his career with a tool supplier, to many industries. He was also a quality and product engineer working at Chrysler on the Jeep Wrangler and Jeep Cherokee Vehicles. John gained further quality, manufacturing, and product engineering experience while working in the Conner Avenue Assembly Plant supporting Dodge Viper and Plymouth Prowler Programs.

While attending LTU, Hockey was the only sport available to students so his roommate, also named John, petitioned for a Rugby team and succeeded. John Burns was the first person to put points on the scoreboard for LTU by scoring the team's first Try (touch-down).

John is an Alumni of LTU where he earned his Baccalaureate Degree in Mechanical Engineering.

Friday Keynote II: August 14, 2020, 10:20 – 11:00 am

Noman Husain
Founder
TRANSFORMability
Detroit, Michigan, USA

Noman Husain is the founder of TRANSFORMability, a business excellence, digital transformation and human capital development consulting company with a primary focus on operations turnaround. He is an experienced business leader, entrepreneur and change agent who galvanizes companies, communities and individuals to thrive upon disruption and achieve excellence. He believes, practices and teaches effectiveness and efficiency through his work to deliver end-to-end transformation.

Mr. Husain has over twenty years of industry and consulting experience in analyzing value chain, crafting business strategy, leveraging organizational resources and leading change for sustainable profits & growth in production & project organizations. His experience include strategy, product development, operations, quality and business transformation.

Among his experience in industrial automation, Mr. Husain worked as Head of Comau Academy and championed the development and growth of an innovative business unit, specializing in STEM and industry 4.0 based education programs including executive Masters, short courses and hands on workshops for companies, professionals and students. Before that he worked at Chrysler for 12 years with various positions including Process Improvement Manager. Mr. Husain received MSIE - Industrial Engineering and MSME - Mechanical Engineering from Wayne State University and Bachelor of Science in Mechanical Engineering from NED University of Engineering and Technology, Pakistan.

18th IEOM Global Engineering Education
DISTINGUISHED SPEAKERS

Times are USA Eastern Standard Time

August 10, Monday

Global Engineering Education I, 4:00 – 5:00 pm - Zoom Meeting Room 1

Session Chair: Dr. John Blakemore, Adjunct Professor at University of Newcastle, Sydney, Australia

4:00 pm – 4:30 pm (Monday, August 10)

Dr. John Blakemore
Adjunct Professor at University of Newcastle
Blakemore Consulting International
Sydney, Australia

Industry 4.0 and its Vision

Dr. Professor John Blakemore originally completed a part time BSc in Metallurgy while working in the steel industry. Later he won an International Scholarship to study a PhD on the electronic structure of metals and alloys and the effect of nuclear irradiation and hydrogen. He was then employed as a Research Scientist at the Atomic Energy Commission and later Chief Metallurgist (R&D). His team developed numerous world first ideas and processes and also the first advanced quality system for defence purposes in Australia in 1981. Earlier work with his team led and assisted in the successful commercialisation of Zincalume coated steel called Colorbond. He set up his own company in 1982 and then developed and helped commercialise a range of processes including two new galvanizing processes, and a new process for Aluminium filtration. He has successfully improved concrete manufacture plastic extrusion, Aluminium casting, welding operations and structural steel manufacture. He had a wide range of International clients including, Panasonic, Canon, Honda, Speedo, CSIRO, BHP, Alcatel, Duracell, Cochlear, Pirelli and others. He wrote the first course in Lean Manufacturing in Australia in 1991, and the first course in Industrial Arts in 1977 and has authored 6 books. He has taught part time at various universities from 1964. His most recent work was leading a team of mathematicians and scientists and engineers successfully prototyping a new scanning device for cervical cancer. He also invented a new surgical procedure to save his own eyesight in 1991. He was the National President of the Australian Manufacturing Society, and has served on numerous boards and is the fellow of numerous professional societies. Currently he is working at the University of Newcastle and assisting a company developing a new tufting process for carpet and researching his next book.

4:30 pm – 4:50 pm (Monday, August 10)

Dr. Jenny Díaz-Ramírez
Engineering Department Professor
Universidad de Monterrey
Monterrey, N.L., Mexico

Gamification of an Engineering Course

Dr. Jenny Díaz-Ramírez is an industrial engineer, graduated from Universidad del Valle, in Cali, Colombia. She studied master programs at Universidad de Los Andes, in Bogotá and at Georgia Institute of Technology, in Atlanta, US. In2007 she obtained her Ph.D. in industrial engineering from Tecnológico de Monterrey, in Mexico. She has been a professor at Tecnológico de Monterrey, and Pontificia Universidad Javeriana, Cali, Colombia, and currently, is a researcher professor in the Department of Engineering at the University of Monterrey. She teaches courses in industrial engineering at undergraduate, graduate, continuing education, and doctoral levels. She is the author and co-author of scientific articles on optimization and statistics applied to transportation, fuel consumption reduction strategies, operations and logistics, gamification, and air quality. She is a member of the National System of Researchers of Mexico -SNI, level 1 since 2015.

4:50 pm – 5:10 pm (Monday, August 10)

Dr. Kapil Gupta
Associate Professor
Department of Mechanical and Industrial Engineering Technology
University of Johannesburg, South Africa

Some Insights on Industry 4.0

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. He has authored several SCI/ISI Journal and International Conference articles. He has also authored and edited 15 international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, spark erosion machining, and sustainable manufacturing etc. that have been published by the renowned international publishers such as Elsevier, CRC Press, and Springer. He is serving on the editorial boards of the Scopus-indexed journals, Journal Européen des Systèmes Automatisés and Mathematical Modelling of Engineering Problems; and international journals, Journal of Micromanufacturing (Sage publications UK) and Int. Journal of Precision Technology (Inderscience). He has delivered keynote and distinguished speeches in several international conferences and symposiums. He is a Y

rated researcher by National Research Foundation 'NRF' (Science Agency) of South Africa. He has secured funding from international agencies such as Royal Academy of Engineering (UK) and involved in national and international research projects. He is a registered with Engineering Council of South Africa as a professional engineering technologist. He is also a member of South African Institute of Mechanical Engineering (SAIMechE) and South African Institute of Industrial Engineering (SAIIE). Currently, he is hosting two postdoctoral research fellows, and supervising some masters and phd students who are busy conducting research in advanced and sustainable manufacturing areas. He obtained PG Diploma in Higher Education and also working towards sustainable university and engineering education 4.0.

August 11, Tuesday

Global Engineering Education II, 4:00 – 5:00 pm - Zoom Meeting Room 1

Session Chair: Prof. Vitor Mendes Caldana, Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus, Sao Paulo, Brazil

4:00 pm – 4:20 pm (Tuesday, August 11)

Dr. Sarbjit Singh
Hanford, California, USA
Former Associate Professor and Head, Department of Industrial & Production Engineering
Dr. B.R. Ambedkar National Institute of Technology (NIT), Jalandhar, Punjab, India
Vice President, NITJ Alumni Association

Dr Sarbjit Singh has obtained PhD in the Industrial & Production Engineering with specialization in Sustainable Supply Chain Management from National Institute of Technology (NIT), India and has his undergraduate and Graduate in Industrial Engineering. He is having 24 years of Teaching, Administrative and Consulting Experience as Assistant Professor, Associate Professor, Associate Dean, Deputy Dean, Environment Engineer, Department Chair and Chartered Engineer. During this period he was involved in Teaching & Learning, Academic Advising, Academic writing, Research and Consultancy, Student Affairs, Recruiting, Lab development, Curriculum design, ERP System Management, Examination evaluations, Startup incubation mentoring, Faculty development, Library affairs, Alumni affairs, Fund raising, Student admissions, Student Housing, International students facilitation, Industrial consultancy, Organizing Convocations / Conferences / workshops / skill development courses. He is a continuous learner and earned the executive education certifications from elite institutions like Harvard Business School (USA); Indian Institutes of Management (IIM Ahmedabad, IIM Bangalore, IIM Kozhikode-India). He has traveled as speaker across the world in different international conferences. He also published more than 50 research papers in journals/proceedings/book chapters/manuscripts. He has supervised Three PhD research dissertations, thirty-five Post-Graduate Thesis dissertations and twenty under-Graduate Industry projects. He is actively involved in International Ergonomics association as co-Chair of ECEE technical committee and also life member of various professional organisations.

4:20 pm – 4:40 pm (Tuesday, August 11)

Dr. Jean Ann Larson, FACHE, LFHIMSS, FIISE, DSHS
Chief Leadership Development Officer
The University of Alabama at Birmingham (UAB) Health System &
Senior Associate Dean for Leadership Development at UAB's School of Medicine
Birmingham, Alabama

Challenges for Leaders in Healthcare during the Pandemic and Beyond

Jean Ann Larson is the chief leadership development officer for the University of Alabama-Birmingham Health System and the Senior Associate Dean of Leadership Development in the School of Medicine. She has over 25 years' experience as a senior leader, organizational and leadership development expert and process improvement consultant. Larson holds a doctorate in organizational change from Pepperdine University and an MBA in international management from Thunderbird, the Garvin School of International Management and a bachelor's degree in industrial engineering from Wichita State University. She is a fellow of the American College of Healthcare Executives and the Institute of Industrial and Systems Engineers and is a diplomate of IISE's Society for Health Systems. She has edited and authored several books and published many articles. Her most recent book is Organizational and Process Reengineering Approaches for Health Care Transformation, Published August 2015, CRC Press, Winner of the 2015 HIMSS Book of the Year Award.

4:40 pm – 5:00 pm (Tuesday, August 11)

Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
Sorocaba, Sao Paulo, Brazil

Implementing a Post-Graduate Industry 4.0 Course : A case Study during COVID-19

Began his academic career with a technician course in Electronics from Liceu de Artes e Ofícios (1999) followed by an undergraduate degree in Electronic Engineering from Universidade Presbiteriana Mackenzie in 2004. In 2016, finished his Masters (M.Sc.) course in Industrial Engineering with the Quality of Engineering Education and its Relation to Regional Development as his area of research. In the industry, from 1999 until 2016, started in Caltronic Automação Industrial, a service-based company in Brazil that represents American and European automation equipment for the printing industry, His last position at the company was Service and Projects Manager. Was responsible for managing not only Brazil but the whole of South America, with services performed also in USA and China. During his professional career in the Industry, took several courses in USA and Europe in Automation and dedicated equipment maintenance. In 2016 left the industry for full-time dedication to teach. In 2014 began his teaching career in FIEB as a substitute teacher for the Electronics Technical Course. In 2016 moved to IFSP to implement the Electronics Technical

Course in the city of Sorocaba and has been engaged with this project since, teaching a variety of courses in electronics. In 2018 began his Research Group in Industry 4.0 and in 2019 was nominated to the Global Council of IEOM for South America.

August 12, Wednesday

Global Engineering Education III, 1:00 – 2:00 pm - Zoom Meeting Room 1

Session Chair: Dr. Ilham Kissani, Al Akhawayn University, Ifrane, Morocco

1:00 pm – 1:20 pm (Wednesday, August 12)

Dr. Shaligram Pokharel
Professor, Department of Mechanical and Industrial Engineering
Qatar University
Doha, Qatar

Implementing Project Based Learning for Project Management

Shaligram Pokharel is a Professor of Industrial and Systems Engineering program at the Department of Mechanical and Industrial Engineering, in Qatar University. Prior to joining this university, he held academic positions in Nanyang Technological University, Singapore. He holds B.E.(Honors) in Mechanical Engineering from the Regional Engineering College (Kashmir, India) and MASc.and Ph.D. in Systems Design Engineering from the University of Waterloo, Ontario, Canada. His research areas are focused in energy planning and modeling, low carbon supply chains, engineering management, reverse logistics, and emergency and humanitarian logistics. Dr. Pokharel has obtained more than US$ 2,000,000 research grant in various areas of engineering management. He has published more than 100 papers in journals and conferences. Dr. Shaligram brings the experience from industry, government, and consulting to research and teaching. He teaches engineering management related courses in Qatar University. The topic of his presentation would be in the Implementation of Project Based Learning for Project Management.

1:20 pm – 1:40 pm (Wednesday, August 12)

Dr.-Ing. Patrick Dallasega
Assistant Professor
Industrial Engineering and Automation
Faculty of Science and Technology
Free University of Bozen-Bolzano
Bozen-Bolzano Italy

Industry 4.0 Implications for Future Engineering Education

Patrick Dallasega is an Assistant Professor of Factory Planning and Project Management at the Faculty of Science and Technology of the Free University of Bolzano (Italy). He studied at the Free University of Bolzano (Italy), at the Polytechnic University of Turin (Italy) and got his PhD at the University of Stuttgart (Germany). From 2005 until 2010, he worked in the fields of plant and factory planning in a local food processing industry. Later, from 2012 until 2015, he was employed as Research Associate at Fraunhofer Italia Research where he managed and executed several research projects for private and public customers. Since 2016, he has been employed as Assistant Professor at the Free University of Bozen-Bolzano. His main research interests are in, supply chain management, Industry 4.0, lean construction, lean manufacturing and production planning and control in MTO and ETO enterprises.

1:40 pm – 2:00 pm (Wednesday, August 12)

Dr. Ilham Kissani
Assistant Professor of Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

Dr. Ilham Kissani is an assistant professor in the field of engineering management for the School of Science and Engineering at Al Akhawayn University in Ifrane, Morocco. She has served as the main advisor and lead instructor for the undergraduate and MS programs in Engineering and Management Systems since 2010. She has helped create very close ties with the AUI School of Business Administration, which allows both schools to leverage our resources and deliver a greater diversity of courses to students, such as supply chain management and operations management. Her background is diverse and includes industrial experience as well as academic. Her degrees are from INSEA, Morocco (Engineer) and Université Laval, Canada (Master and Ph.D). She has worked with Royal Dutch Shell as a project manager and with Modellium Québec, where she consulted in logistics and supply chainissues. Additionally, Dr. Kissani contributes in research in supply chain management, planning, and operations research. She is a member of ASEM, IEEE, IEOM, IIE, and INFORMS.

August 12, Wednesday

Global Engineering Education IV, 4:00 – 5:00 pm - Zoom Meeting Room 1

Session Chair: Fernando Monroy, The University of Texas at El Paso, Texas, USA

4:00 pm – 4:10 pm (Wednesday, August 12)

Sibrina N. Collins, Ph.D.
Executive Director
The Marburger STEM Center
Lawrence Technological University
Southfield, Michigan

Dr. Collins is an inorganic chemist and STEM administrator. She began her college career at Highland Park Community College (Highland Park, Mich.), where she earned an associate of science degree in 1990. Dr. Collins later earned a B.A. in chemistry (cum laude) in 1994 from Wayne State University (Detroit, Mich.). She earned her M.S. (1996) and Ph.D. (2000), both in the field of inorganic chemistry, from The Ohio State University under the direction of Professor Bruce Bursten.

As a graduate student at OSU, she received significant training as a photochemist, where she used light to study chemical reactions and photochemically reactive molecules. She later completed a postdoctoral appointment at Louisiana State University (Baton Rouge, Louisiana) with Professor Isiah Warner, where she focused on heart disease research.

Between 2003 and 2006, Dr. Collins was an assistant professor of chemistry at Claflin University, an HBCU (Historically Black Colleges and Universities) in Orangeburg, South Carolina. Her research efforts at Claflin University focused on the crystal-engineering of metal-organic frameworks (MOFs), which have many potential applications as electronic materials. Dr. Collins has also worked as a writer and editor for the American Association for the Advancement of Science (AAAS) in Washington, DC.

From May 2006 to May 2008, she served as the Director of Graduate Diversity Recruiting for the University of Washington (Seattle, Wash.). In this role, she focused on building effective partnerships between STEM (Science, Technology, Engineering, Mathematics) faculty at minority-serving institutions (MSIs) and the University of Washington.

Dr. Collins served as a faculty member in the Department of Chemistry at The College of Wooster (Wooster, Ohio) from 2008–14. At Wooster, her research focused on developing a detailed understanding of the molecular structures, electronic structures, photophysics and reactivity of a selection of late transition metal complexes and exploit this understanding to design effective anticancer agents. The transition metal complexes contained ruthenium (Ru), rhenium (Re), gold (Au) and copper (Cu) metal centers.

Dr. Collins has mentored 17 undergraduate chemistry students and published peer-reviewed articles in high-impact journals such as Inorganic Chemistry, Acta Crystallographia, Journal of Chemical Education, and the Bulletin for the History of Chemistry.

She most recently served as the Director of Education at The Charles H. Wright Museum of African American History, which is the leading cultural institution focused on the African American experience. In this new role, she focused on the science education and social studies programming for the Wright Museum.

Dr. Collins is currently the Executive Director of the Marburger STEM Center (MSC) at Lawrence Technological University. The Marburger STEM Center is the intellectual home of campus-wide STEM initiatives at LTU, which promote inclusiveness, excellence, creativity and innovation.

4:10 pm – 4:30 pm (Wednesday, August 12)

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

ID 733: Re-Engineering Peer Collaboration Through Cognitive Coaching: Paradigm Shift from Andragogy to Heutagogy

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

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

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

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

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

4:30 pm – 4:50 pm (Wednesday, August 12)

Dr. Saman Hassanzadeh Amin
Assistant Professor, Mechanical and Industrial Engineering Department
Ryerson University, Toronto, Ontario, Canada

Dr. Saman Hassanzadeh Amin is an Assistant Professor in the Department of Mechanical and Industrial Engineering at Ryerson University. Prior to joining Ryerson University, he was an Assistant Professor of Supply Chain Management at Cape Breton University in Nova Scotia. Dr. Amin has taught several courses at the University of Windsor, Cape Breton University, and Ryerson University in both business schools and engineering faculties. He has developed some courses at those universities. Dr. Amin's research expertise includes Supply Chain Management, Operations Management, Operations Research, Optimization, Information Technology, and Decision Support Systems. He has published 30 articles in well-known journals, such as "Journal of Cleaner Production", "Expert Systems with Applications", "International Journal of Production Economics", and "International Journal of Production Research". His publications have received over 1,900 citations to date in Google Scholar. Dr. Amin's research is externally supported by both NSERC and SSHRC, and includes NSERC Discovery, NSERC Engage, and SSHRC Insight Development grants, displaying his ability to cross disciplines effectively. He has received a number of awards for his work (e.g., Administrative Sciences Association of Canada Conference in 2016).

4:50 pm – 5:10 pm (Wednesday, August 12)

Dr. Fernando Monroy
Student STEAM Success Coordinator
The University of Texas at El Paso
El Paso, Texas, USA

August 13, Thursday

Global Engineering Education VI, 7:00 – 10:00 pm - Zoom Meeting Room 1

Session Chair: Dr. Gulnara (Gulya) Abitova, Professor at Almaty Management University (AlmaU), Astana, Kazakhstan

7:00 pm – 7:20 pm (Thursday, August 13)

Dr. Fatin Aliah Phang
Professor
Fellow at the Centre for Engineering Education (CEE)
Universiti Teknologi Malaysia
Johor Bahru, Johor, Malaysia

Fatin Aliah Phang is a fellow at the Centre for Engineering Education (CEE), Universiti Teknologi Malaysia (UTM). She is also an Associate Professor at the School of Education, Faculty of Social Sciences & Humanities, UTM. She joined UTM in 2003 as a Tutor and later continued her study in the field of Physics Education and graduated with a Phd in Education at the University of Cambridge, UK in 2009. Her research area is on Physics Problem Solving, Metacognition, Environmental Education focusing on Low Carbon Society, STEM Education, Educational Research (Qualitative) and Engineering Education. She has widely published and led research projects in STEM Education, Environmental Education and Engineering Education.

7:20 pm – 7:40 pm (Thursday, August 13)

Dr. Matthew W. Ohland
Professor and Associate Head of Engineering Education
Purdue University
West Lafayette, Indiana, USA

ID 772: ***Monitoring and Improving Student Team Experiences***

Matthew W. Ohland is Professor and Associate Head of Engineering Education at Purdue University. He has degrees from Swarthmore College, Rensselaer Polytechnic Institute, and the University of Florida. His research on the longitudinal study of engineering students, team assignment, peer evaluation, and active and collaborative teaching methods has been supported by the National Science Foundation and the Sloan Foundation and his team received Best Paper awards from the Journal of Engineering Education in 2008, 2011, and 2019 and from the IEEE Transactions on Education in 2011 and 2015. Dr. Ohland is an ABET Program Evaluator for ASEE. He was the 2002–2006 President of Tau Beta Pi and is a Fellow of the ASEE, IEEE, and AAAS.

Abstract: There are many reasons to put students in teams – teaching them to work in teams, the learning benefits of collaboration, the diversity benefits of finding out other students' perspectives, and the ability to provide a deeper level of feedback on the smaller number of assignments submitted by student teams are among them. For all these benefits, having students work in teams introduces other issues for faculty to manage – from forming teams to dealing with teams in crisis to evaluating how much each student contributed to assignments submitted as a team. CATME has helped many faculty form and manage teams, and has also enabled research suggesting better methods of managing student teams – research that has implications for the workforce as well. The talk will include a discussion of the challenges of managing virtual teams.

7:40 pm – 8:00 pm (Thursday, August 13)

Dr. Rajeev Agrawal
Associate Professor, Mechanical Engineering Department
Associate Dean (Research)
Malaviya National Institute of Technology Jaipur
Rajasthan 302017, India

Dr. Rajeev Agrawal is Fellow of The Institution of Engineer's (IEI), India. He received his M.E. from MNNIT,Allahabad and Doctorate from BIT,Mesra. He is presently working as an Associate Professor in MNIT,Jaipur. Dr. Rajeev Agrawal is having more than 20 years of Professional Experience. He is a Member Editorial Board in the International Journal of Business and Systems Research (IJBSR) (Inderscience Publishers). He is actively involved in bringing industry orientation to the engineering education system in India working with several industries, statutory bodies and other R&D organizations. Demonstrating Research capabilities in terms of research papers published/presented (Including IEEE Explore Proceeding, Springer, Emerald and Science Direct and Inderscience Publishers) and currently having various sponsored and Industrial consultancy.Dr. Rajeev Agrawal currently managing a Research projects includes engaged in Autonomation, Lean Six Sigma, Supply chain Design and Reconfigurable manufacturing system (RMS). One of the objective of his current research is to address convert quickly for the production of new product by providing customized flexibility and can be improved, upgraded and reconfigured in response to fluctuating demands in automotive companies.

8:00 pm – 8:20 pm (Thursday, August 13)

Jihong Yan, Ph.D.
Professor in Industrial Engineering
Deputy Dean of School of Mechatronics Engineering
Head of intelligent Manufacturing Scientific Research Team
Harbin Institute of Technology, Harbin, China

Pathways to Success: Innovation and Entrepreneurship Education at HIT

Dr. Jihong Yan is a Professor (since 2005) in Industrial Engineering at Harbin Institute of Technology (HIT), she is also the deputy dean of School of Mechatronics Engineering and head of intelligent manufacturing scientific research team at HIT. She received her PhD from Harbin Institute of Technology in 1999. Then she joined Tsinghua University (from 1999 to 2001), the University of Wisconsin (from 2001 to 2004) and Pennsylvania State University (from 2004 to 2005) as a postdoctoral researcher. Dr. Yan is the director of National High-end Equipment Manufacturing Virtual and Simulation Experiment Teaching Center, head of Research Oriented Teaching Innovation Team for High-end Equipment Manufacturing of the Ministry of Industry and Information Technology of China, vice chairman of Production System Special Committee of Chinese Mechanical Engineering Society, and chairman of Industrial Engineering Professional Committee of the Mechanical Engineering Society of Heilongjiang Province.

Her main area of research is industrial big data, sustainable manufacturing, intelligent logistics and advanced maintenance of machinery. As a PI, Dr. Yan has worked on and accomplished 15 projects in intelligent manufacturing and sustainability related areas, funded by the NSF of China(NSFC), NSF-NSFC joint-project funding, National key R&D plan project funding, National High-tech project funding, National "863" project funding, EU EPSRC project funding, High-tech funding from industries, and so on. She has authored and co-authored over 100 research papers and published 3 books, two papers were ranked ESI high cited articles. Currently there are 17 professors and engineers with her research team, the team dedicates to theoretical research and system implementation in the fields of intelligent operation optimization theory and methods of manufacturing systems, manufacturing IoT technologies and devices, and equipment health monitoring, etc.

8:20 pm – 8:40 pm (Thursday, August 13)

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

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

8:40 pm – 9:00 pm (Thursday, August 13)

Dr. Gulnara (Gulya) Abitova
Business-Trainer, Lecturer, and Science Advisor
Professor at Almaty Management University (AlmaU)
Astana, Kazakhstan

Dr. Abitova graduated Postdoctoral Program in Control Systems from State University of New York (Binghamton, NY, USA). She has been an invited to Computer and Electrical Engineering Department at State University of New York at Binghamton (NY, USA) for Study. Gulnara Abitova was Invited Professor at the Savonia University of Applied Sciences and Technology (Kuopio, Finland).

Dr. Abitova holds Ph.D. Degree in Automation and Control from Eurasian National University named by L.N. Gumilyov (Kazakhstan), Ph.D. Degree (Doctor of Technical Sciences) in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science (Almaty, Kazakhstan), and Master's Degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys (Moscow, Russian Federation).

She is Holder of Several International Grants and Scholarships: International Scholarship from State University of New York for Doctoral Research Work (USA); International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad (USA); Erasmus+ Program (Staff Mobility for Teaching Mobility Program) for giving the Lectures at Savonia University of Applied Sciences (Kuopio, Finland); International Grant from Erasmus Mundus Program for Staff Mobility Program (Bilbao, Spain, June); International Grant for the Educational Program (Singapore Management University – Chong Kong Chinese University); International Scholarship for Government Employees (KOICA, South Korea);

Gulnara Abitova is Business-Trainer, Lecturer, Science Advisor, Ass.Professor at Almaty Management University (AlmaU); Professor of Polylingual Education and Researcher in the School of Government Policy at the AlmaU (Almaty); Head of the Project Group and Ass. Professor at the Kazakh-Russian International University (Aktobe). Prior to this current position, she was Director and Executive Director of two Business-Companies (Group-Independent LLP; Best-Group NS LLP, Nur-Sultan); Vice-President of the Kazakh-Russian International University; Head of the System Analyses and Management Department, Director of the Department of International Cooperation, Director of the Science Department at the L.N. Gumilyov Eurasian National University (Astana, Kazakhstan); General Director of the Kazakh Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N.Gumilyov Eurasian National University (ENU, Kazakhstan).

Gulnara Abitova was also the National Coordinator of UNESCO's Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been the Distinguished Speaker at Global Engineering Education Forum of IEOM, Invited Speaker at the International Conferences (IEEE, SPIE, CSDM, ICUMT) and published more than 80 research articles in the reputed international proceedings and journals. She served as the Track Chair in the IEOM conferences.

Dr. Abitova's current research interest includes: control systems and industrial automation; online technology and digital education; project management and green energy; simulation and design of control systems; cybernetics and cloud technology; business management and education and science policy.

9:00 pm – 9:20 pm (Thursday, August 13)

Mohammad Anwar Rahman, Ph.D.
Associate Professor
Program Coordinator: Supply Chian & Logistics Management (MS)
School of Engineering & Technology
Central Connecticut State University
1615 Stanley St., New Britain, CT 06053

Dr. Mohammad Anwar Rahman is a faculty at the Central Connecticut State University in Manufacturing and Construction Management. He has published papers in referred journals and presented results in conferences. His research focuses on logistics, supply chain management, stochastic process and designing quality procedure. Dr. Rahman conducted several research projects with Mississippi Dept. of Education (MDE) and US Dept. of Transportation (USDOT). He has various certifications including Lean Six Sigma Green Belt (Purdue University), Lean Principles (Purdue University), Demonstrated Master Logistician (The International Society of Logistics), Malcolm Baldrige Quality Award Examiner (Louisiana Quality Foundation), and Certified Transportation & Logistics (American Society of Transport & Logistics). Dr. Rahman is affiliated with ISERC, DSI, AST&L and IEOM.

9:20 pm – 9:40 pm (Thursday, August 13)

Anjum Ali, Ph.D.
(Retd.) Professor of Electrical Engineering, FAST-NU, Lahore, Pakistan.
Ex. Associate Professor of Computer Engineering, LUMS, Lahore, Pakistan
Ex. Professor of Computer Science and Engineering

Dr. Anjum Ali completed his Ph.D. degree in August 1988 from the University of Alabama, Huntsville, Alabama, U.S.A. He has been teaching Electrical and Computer Engineering subjects since March 1978. His first teaching appointment, as a lecturer of Electrical Engineering, was at the University of Engineering and Technology (UET), Lahore, Pakistan, after winning gold medals in each of the last three years of his undergraduate engineering education.

His teaching experience includes twelve years at Mercer University, Macon, Georgia, USA, and about nine years at three different universities in Saudi Arabia. At Mercer University (1988-1999), he was the lead faculty member who developed the Computer Engineering curriculum series, from the first undergraduate course in the area to various MS level electives.

He has also worked, as an associate professor, at the Lahore University of Management Sciences (LUMS), Lahore, Pakistan, from 1996 to 1998. During his stay at LUMS, he developed the computer engineering portion of the CS curriculum, and helped the university transition from the quarter system to the semester system.

He served as the chairman of the Electronics Engineering and Instrumentation Department at the Hail Community College (now University of Hail), Hail, Saudi Arabia, from February 2000 to June 2002. During his stay there, he developed a four-year degree program in Electrical Engineering for the University of Hail.

Dr. Anjum Ali moved to Pakistan in July 2002, and joined Al-Khawarizmi Institute of Computer Science (KICS) at the University of Engineering and Technology, Lahore, as a professor in December 2002. During his stay at KICS, he initiated many research and development projects and won research grants.

He has been a professor of Electrical Engineering at the National University of Computer and Emerging Sciences, (FAST-NU), Lahore, from May 2005 to May 2018. He was the Head of Electrical Engineering from March 2007 to September 2013, and during this time he developed multiple long-range policies and procedures for the university, which are still in place. He was also the Acting Director, Lahore Campus, at different occasions during his stay at FAST-NU, Lahore.

Dr. Anjum Ali was the convener of the National HEC Computer Engineering curriculum development committee. The HEC committee (NCRC) developed and finalized the 2009 HEC Computer Engineering Curriculum for all Pakistani universities. Dr. Anjum Ali has taught many EE, CE and CS courses and supervised numerous graduate as well as undergraduate students during his 40 years of teaching career. He has over 30 conference and journal publications. He is also the founding editor of the FAST-NU Research Journal. His areas of current research interest include embedded control systems and computer architecture.

After retirement from FAST-NU, Dr. Anjum Ali is leading a research and development company in Atlanta, GA, USA, as its president and CEO.

9:40 pm – 10:20 pm (Thursday, August 13)

Dr. Shamsul Huda
Lecturer in Computer Science
Cyber Security Research and Innovation Centre (CSRI)
School of Information Technology
Faculty of Science Engineering and Built Environment
Deakin University
Burwood, Victoria, Australia

Cyber security for industrial control systems and networks: vulnerabilities, targeted attack and challenges

Shamsul Huda received his PhD degree in computer science at the Centre for informatics and applied optimization (CIAO) at Federation University Australia. Currently he is a Lecturer in School of Information Technology, Deakin University, Australia. Prior to join Deakin, he worked as an academic in Federation University and as an Assistant Professor in Khulna University of Engineering and Technology (KUET), Bangladesh. Dr Huda is a Certified

Information System Security Professional (CISSP) by The International Information System Security Certification Consortium, (ISC)² . He is also a member of Cyber Security Research and Innovation Centre (CSRI) at Deakin University. Dr Huda is involved in many international cyber security projects including Cybersecurity capacity maturity for nations at Oceania Cyber Security Centre (OCSC), Melbourne with partnership of the Global Cyber Security Capacity Centre (GCSCC) at the University of Oxford. His main research areas are Cyber risk assessment for critical assets and services, National and portfolio level cyber strategy development, strategies for secure operations for Industrial Control systems (SCADA) and Critical infrastructure, Intelligent counter measure for threats against Mobile system, detection of data breaches through the darknet, IoT security, Malware analysis and detection, reverse engineering for endpoint security, malware analysis and detection for SCADA systems. He has published more than 60 journal and conference papers in well reputed journals including IEEE Transactions. He received MSc. in Computer Science and Engineering from Bangladesh University of Engineering and Technology, BUET and Bachelor of Science in Electrical and Electronic Engineering from Khulna University and Engineering and Technology, KEUT, Bangladesh. Dr. Huda was a faculty member in Computer Science department, Khulna University of Engineering and Technology, Bangladesh. He was a Programmer - Software development and network administration, Controller of examination section, Bangladesh University of Engineering and Technology, Bangladesh (BUET). Dr. Huda is a member of IEEE.

Submissions Received from Countries and Territories

Algeria	India	Morocco	Sri Lanka
Australia	Indonesia	Nigeria	Sudan
Austria	Iran	Oman	Switzerland
Bangladesh	Israel	Pakistan	Taiwan
Brazil	Italy	Paraguay	Thailand
Canada	Japan	Peru	Tunisia
China	Jordan	Philippines	Turkey
Colombia	Kenya	Portugal	United Arab Emirates
Czech Republic	Kuwait	Qatar	United Kingdom
Denmark	Latvia	Saudi Arabia	United States
Egypt	Lebanon	Singapore	Zimbabwe
Finland	Libya	South Africa	
France	Malaysia	South Korea	
Germany	Mexico	Spain	

IEOM Global Business Management Education
DISTINGUISHED SPEAKERS

August 11, Tuesday, 1:00 – 2:00 pm, Room 1
IEOM Global Business Management Education

Session Chair: Prof. Vikas Kumar, University of the West of England, Bristol, UK

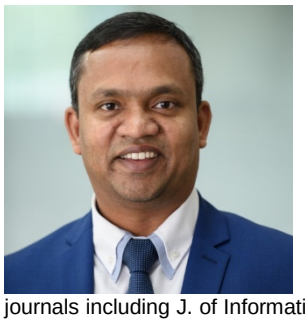
1:00 pm - 1:20 pm (Tuesday, August 11)

Professor Kazim Sari
Vice Rector
Head, Department of Industrial Engineering
Beykent University
Ayazağa Campus
Istanbul, Turkey

Dr. Kazim Sari is a Vice Rector and Head of Industrial Engineering at Beykent University, Istanbul, Turkey. In addition, he is an active researcher and teaching professor on green management, supply chain optimization, multi-criteria decision making, and simulation modeling.Dr. Sari received my B.S. degree in Industrial Engineering (English) from Marmara University in 2000. Upon completion of his B.S. degree, he joined to Beykent University as a Research Assistant and received my M.B.A. degree in Management Information Systems in 2002. His master thesis was about the forecasting methods and their relationship with the bullwhip effect in supply chains. Later, Dr. Sari earned his Ph.D. degree in Industrial Engineering from Istanbul Technical University (ITU) in 2006. His Ph.D. dissertation was about the collaborative works (e.g. cpfr) among supply chain members and their impact on the supply chain performance. After six years of earning his Ph.D. degree, he is promoted to Associate Professor of Industrial Engineering in 2012. Later, by the start of 2018, Dr. Sari is promoted to Full Professor of Industrial Engineering.

Before joining to Industrial Engineering Department at Beykent University, Dr. Sari has worked as an Assistant Professor (between 2006-2013) and Associate Professor (between 2013-2014) in the Department of International Logistics and Transportation at Beykent University. In addition, he has also served as Chair of International Logistics and Transportation Department (2011-2014) and Vice Dean for the Faculty of Economics and Administrative Sciences (1/2013-4/2014).

1:20 pm - 1:40 pm (Tuesday, August 11)



Prof. Vikas Kumar
Director of Research and Scholarship
Professor of Operations and Supply Chain Management
Bristol Business School
University of the West of England
Bristol, UK

Prof. Vikas Kumar is Director of Research and Professor of Operations and Supply Chain Management at Bristol Business School, University of the West of England, UK. He serves on the editorial board of around six international journals including International J. of Supply Chain and Operations Resilience, Int. J. of Service, Economics, and Management and Int. J. of Manufacturing Systems. He has guest edited a number of special issues in high impact journals including J. of Information Technology (ABS 3*), Supply Chain Management an Int. J. (ABS 3*), Production, Planning & Control (ABS 3*), Int. J. of Productivity and Performance Management (ABS 2*), J. of Manufacturing Technology Management (ABS 1*), In. J. of Engineering Management and Economics (IJSEM), Int. J. of Lean Enterprise Research (IJLER), and Int. J. of Lean Six Sigma (IJLSS). He is also reviewer of more than 15 international journals including ABS 4/4* and ABS 3* journals such as Int. J Production Research (ABS3*), Int. J of Production Economics (ABS3*), Production Planning and Control (ABS3*), Supply Chain Management an Int. J (ABS3*), Expert Systems with Application (ABS3*), Int. J of Production and Operations Management (ABS4), J of Intelligent Manufacturing Systems (ABS2*) and Computers and Industrial Engineering (ABS2*).

Prof. Kumar works very closely with industries and has generated research funding in the excess of £1 million from various research agencies such as Innovate UK, EPSRC, British Council, British Academy, Newton Fund, and Science Foundation of Ireland. He is currently working on two research projects funded by British Academy/Newton Fund and Royal Academy of Engineering that are focused on developing countries (Indonesia and Turkey). His research projects are in collaboration with researchers from a number of UK universities as well as researchers from Brazil, Vietnam, Thailand, Indonesia, Costa Rica and Turkey.

Prof. Kumar's current research focus is on sustainable supply chain management and Supply Chain 4.0. His other research interests include supply chain improvement, short food supply chains, green supply chain, process modelling, innovation in SMEs, operations strategy, and service supply chains. He is involved in teaching a number of postgraduate and undergraduate modules on research methods, operations management and operations strategy. He is also actively involved in supervising research masters and doctoral students (PhDs).

1:40 pm - 2:00 pm (Tuesday, August 11)

Rajesh Ranjan
Fellow@NITIE; Mumbai
UGC-NET (Management)
Assistant Professor, Faculty of Management Studies
Gopal Narayan Singh University
Sasaram, Bihar, India

Rajesh Ranjan; UGC- NET qualified in Management is pursuing Full-Time Residential Ph.D (with GOI's Merit Scholarship) at National Institute of Industrial Engineering (NITIE)', Mumbai. NITIE is one of the prominent institutes of the government of India under the Ministry of HRD. He has submitted his Ph.D. Thesis. Presently, Rajesh is working as an Assistant Professor in Faculty of Management Studies at Gopal Narayan Singh University, Jamuhar, Sasaram, Bihar, India. He is working as an Internal Examination In-Charge in the Faculty of Management Studies, Gopal Narayan Singh University. During his academic career, he has published many research articles in refereed international journals and presented research papers at different reputed international conferences with the government of India financial support on a merit basis. He receive MBA in Marketing from Manonmaniam Sundaranar University, Tirunelveli, India and Bachelor of Science in Chemistry from Magadh University, Bodh-Gaya, Bihar, India. Rajesh previously worked as Assistant Professor (Marketing) at International School of Business & Media (ISB&M), Pune, India, Assistant Professor (Marketing) at Swayam Siddhi College of Management and Research, University of Mumbai, Mumbai, India, Assistant Professor (Marketing) at Thakur Institute of Management Studies & Research, University of Mumbai, Mumbai, India) and Lecturer (Bachelor of Business Management) at Shree Krishna Mahila College, Magadh University, Bodh Gaya, Jehanabad, Bihar, India.

August 13, Thursday, 4:00 – 5:00 pm, Room 1
IEOM Global Business Management Education

Session Chair: Dr. Mahdi FATHI, University of North Texas, Denton, Texas, USA

4:00 pm - 4:20 pm (Thursday, August 13)

Dr. Mahdi FATHI
Assistant Professor
Department of Information Technology and Decision Sciences (ITDS)
G. Brint Ryan College of Business
University of North Texas, Denton, Texas, USA

Dr. Mahdi FATHI is currently an Assistant Professor at the Department of Information Technology & Decision Sciences, G. Brint Ryan College of Business-University of North Texas, Denton, United States. He received his BS and MS from the Department of Industrial Engineering, Amirkabir University of Technology (Tehran Polytechnic) and Ph.D. from Iran University of Science and Technology, Tehran, Iran in 2006, 2008 and 2013, respectively. Dr. Fathi won three postdoctoral fellowships at Industrial Engineering lab-Ecole Central Paris (France), Stochastic Modeling and Analysis of Communication Systems (SMACS) Group at Dep. of Telecommunications and Information Processing (TELIN) -Ghent University (Belgium), Dep. of Industrial & Systems Engineering-Mississippi State University (USA). Moreover, he was visiting scholar at Center for Applied Optimization, Dep. of Industrial and Systems Engineering-University of Florida (USA), at Dep. of Electrical Engineering-National Tsing Hua University in Taiwan, and at Dep. of Industrial Engineering-Tecnológico de Monterrey in Monterrey, Mexico. Also, Dr. Fathi worked at Optym as a senior systems engineer and at A Model Of Reality Inc. as a system design engineer in the USA and several other companies in different industry sectors. Dr. Fathi has published in such journals as the Technometrics, IIE Transactions on Healthcare Systems Engineering, IEEE Transactions on Automation Science and Engineering, IEEE Transactions on Industrial Informatics, IEEE Access, International Journal of Production Research, Applied Soft Computing, Journal of Risk and Reliability, Journal of Manufacturing Systems, Computers and Industrial Engineering, International Journal of Computer Integrated Manufacturing, and International Journal of Advanced Manufacturing Technology. He is the corresponding editor of the textbooks "Large Scale Optimization in Supply Chains and Smart Manufacturing: Theory and Applications" and "Optimization in Large Scale Problems: Industry 4.0 and Society 5.0 Applications". Prof. Fathi is an active member of several societies and institutions and serves on the editorial board of several journals. His current research interests include Information Systems, Statistics and Optimization.

4:20 pm - 4:40 pm (Thursday, August 13)

Dr. Tagwa Ahmed Musa Mohamed
Executive Committee Member - Global Engineering Dean's Council (GEDC)
Associate Professor and Former Dean - College of Petroleum Engineering and Technology
Sudan University of Science and Technology
Khartoum- Sudan

ID 778 Sudanese Women in Extractive Industries: Engineering Education Point of View

Dr. Tagwa A. Musa is an Associate Professor of Petroleum Engineering at Sudan University of Science and Technology (SUST) - Khartoum, Sudan and the former dean of College of Petroleum Engineering and Technology at SUST. She is the first Sudanese woman to receive a PhD in petroleum engineering. She has an extensive research and teaching experience in addition to significant contribution to academic, practice, research and community service programs both locally and internationally. In 2017 she received the Women in Industry and Academia award from IEOM and in 2019 she received the SPE Regional Service Award for MENA Region. In2019, she has been elected as Global Engineering Dean's Council (GEDC) executive committee member. Dr. Tagwa has a Bachelor with First Class Honors degree from SUST, and a Master's and a PhD from China University of Geosciences (all in petroleum engineering).

4:40 pm - 5:00 pm (Thursday, August 13)

Dr. Anjali Awasthi
Associate Professor
Concordia Institute for Information Systems Engineering
Faculty of Engineering and Computer Science
Concordia University
Montreal, Canada

Dr. Anjali Awasthi is Associate Professor at Concordia Institute for Information Systems Engineering (CIISE), in Concordia University, Montreal. She received a PhD in industrial engineering and automation from INRIA Rocquencourt and University of Metz, France. Prior to Concordia, Dr. Awasthi worked at University of British Columbia and University of Laval where she was involved in several projects on industrial applications of operations research. In France, she was involved in many European projects aimed at improving urban mobility in cities, city logistics and on cybernetic transportation systems. Her areas of research are modeling and simulation, data mining, Information Technology and decision making, sustainable logistics planning, quality assurance in supply chain management and sustainable supply chain management. She is the author of several journal and conference papers on these topics.

August 14, Friday, 1:00 – 2:00 pm, Room 1
IEOM Global Business Management Education

Session Chair: Dr. Shahram Taj, Florida Polytechnic University, Lakeland, Florida

1:00 – 1:20 (Friday, August 14)

Dr. Shahram Taj
Professor & Chair
Department of Data Science and Business Analytics
Florida Polytechnic University
Lakeland, Florida

Dr. Shahram Taj joined Florida Polytechnic University in August 2016 as a professor of logistics and supply chain management. He served as the academic program coordinator of science and technology management and the academic program coordinator of graduate programs in 2017. Since January 2018, he has served as the chair of the department of data science and business analytics.

Taj is an accomplished academician, executive consultant with an expertise in business model innovation, lean and sustainable operations, strategic management, production systems design, systems optimization/simulation, and supply chain management.

Taj has extensive tenure in academia. He was professor and chair of the Department of Management and Marketing at Lawrence Technological University in Michigan from2013 to 2016. He served as The Cameron Endowed Chair of Management and Marketing at the University of St. Thomas in Houston from 2008 to 2013. Taj previously taught for more than 20 years at the University of Detroit Mercy and earned the institution's President's Award for Faculty Excellence. He also taught in the Global Entrepreneurial MBA Program at Fu Jen Catholic University in Taiwan from 2004 to 2006 and was a visiting professor at Peking University in China teaching in the Beijing International MBA Program in 2004. Taj also taught at Baruch College, The City University of New York from 1984 to 1987.

Taj has developed several graduate programs such as the master's degree in product development in collaboration with Massachusetts Institute of Technology (MIT), Ford, Xerox, and the National Science Foundation. He also developed graduate degree programs in software engineering, EMBA, and supply chain/transportation efficiency systems(funded by the U.S. Department of Transportation).
Taj has conducted more than 100 projects at Ford, Visteon, New Venture Gear (formerly joint venture of GM and DaimlerChrysler), GM-Holden, Baker Hughes, and Schlumberger in the United States, Germany, Australia, and Japan. The projects have covered productivity improvements, implementing lean manufacturing, and optimizing process design. In 1999,he earned the Franz Edelman Finalist Award for Achievement in Operations Research/Management Science for projects that resulted in $15.5 million capital savings and a profit increase of more than $2 billion for Ford Motor Company. From 1998 to 2000, Taj worked as an executive consultant for New Venture Gear Company to design a lean automotive manufacturing plant in Leipzig, Germany, to supply powertrain to Porsche Cayenne and Volkswagen Touareg that resulted in savings of $21 million (This plant has been designated by Porsche as the supplier of the year.). From 2009 to 2010, Taj served as an executive technical advisor to executives in the new worldwide Supply Chain and Manufacturing Division at Baker Hughes in Houston.

Taj also collaborated with the Production System Design Laboratory at MIT conducting research in the design and the implementation of "lean production systems" in the automotive industry in the U.S. and Europe.

Taj has served as thesis advisor/reader of more than 100 graduate students at the University of Detroit Mercy, including a doctoral thesis committee at MIT. He served as the track chair of the "Lean Manufacturing, Manufacturing Information Management, Supply Chain, and Product Development" for the SAE International in Ireland, Spain, and France. He has published 68 refereed articles in journals and proceedings of many international conferences. Recently, he published several articles on the adaptation of lean production in China, and most recently in areas of sustainability and business model innovation.

1:20 pm - 1:40 pm (Friday, August 14)

Professor James Mennie
Assistant Professor of Business Analytics
Department of Data Science and Business Analytics
Director of Florida Industrial & Phosphate Research Institute
Florida Polytechnic University
Lakeland, Florida

Presentation Title: "***Project Based Learning***"

Dr. Mennie has been with Florida Polytechnic University since 2015 and is an Assistant Professor of Business Analytics in the Department of Data Science and Business Analytics.

He brings ample experience as a business leader and educator to his role teaching business courses at Florida Polytechnic University. Thus far, he has taught 23 distinct business classes some of which included Engineering & Technology Project Management, Supply Chain Risk Management, Intro to Operations, Strategic Management, and Entrepreneurship Opportunity Analysis

Dr. Mennie completed his DBA at USF Muma College of Business, and his MBA from Long Island University. He also holds a B.A in Political Science from the State University of New York, College at Oswego. His teaching experience includes working at the State University of New York at Stony Brook, international teaching experience at the Women's University in Seoul, South Korea, as an adjunct business instructor at Hillsborough Community College.

In addition to his academic responsibilities last summer, Dr. Mennie was appointed to the position of Business Director of the Florida Industrial and Phosphate Research Institute (FIPR Institute) with the expanded purpose of strengthening FIPR's finances, developing a new strategic plan and implementing it. FIPR has been in existence for over forty ears and is the largest repository of phosphate research in the world. He leads a team of research scientists engaged in resolving business challenges in wastewater cleanup, mining beneficiation, recovery of REE's, and new technology in fertilizer application.

Dr. Mennie has over 35 years of business experience, having owned his own family businesses, as well as having worked for large companies in the New York metro area, from where he relocated to Florida. He has extensive experience in improving a broad range of business operations working with a plethora of Fortune 500 companies.

1:40 pm - 2:00 pm (Friday, August 14)

Dr. Douglas Carter
Assistant Professor, College of Business
Texas A&M University
San Antonio, TX, USA

Presentation Title: "***Entrepreneurship, Experiential Learning, and the Global Pivot***"

Dr. Douglas H. Carter has a B.A. in Communication Theory and Cross-Cultural Communications from The Ohio State University, a M.B.A. in International Business from National University and a DBA from the University of South Florida. Employed at Texas A&M University-San Antonio as an Assistant Professor in the College of Business, Douglas was formerly the Associate Vice President for External Affairs & Global Partnerships. Courses taught include: Global Management; Principles of Management; Business & Society; Labor Management and Collective Bargaining; Organizational Theory & Human Behavior: Principles of Entrepreneurship; Entrepreneurship: Ideation to Launch; Entrepreneurship-Business Plan; and, Study Abroad (European Innovation Academy), and Strategic Management (Capstone).

Douglas has been involved with many professional activities since joining A&M –SA, including: 2014 to Present the World Affairs Council of San Antonio; 2017 – Present Fulbright Association: 2014 Brookings Institute/City of San Antonio Foreign Direct Investment Task Force; 2013 Texas-Israel Chamber of Commerce Delegation to WATEC-Tel Aviv; 2013 San Antonio Hispanic Chamber of Commerce Trade Mission to Spain; 2013 & 2014 Texas-Israel Chamber of Commerce Board Member; 2012 Panel Moderator – GLOBES Business Conference Tel Aviv, Israel; 2012 San Antonio Hispanic Chamber of Commerce Trade Mission to Israel; 2011 & 2012 Greater San Antonio Chamber of Commerce Advisory Board; 2005-2017 Frost Bank Business Advisory Council; 2017 & 2018 European Innovation Academy, Turin, Italy; and 2019 European Innovation Academy, Hong Kong.

Recent Academic Conference Attendance and Presentations include: SW Fulbright Symposium – San Antonio, TX Spring 2019 Co-Presenter: "Study Abroad, Experiential Learning and Student Engagement: The Student/Faculty Team Collaboration to Innovation and Adventure"; Texas A&M University Student Research Symposium 2019 "High-Impact Experience: Overcoming Challenges of Teaching Leadership Skills in Undergraduate and Graduate Leadership Courses" – Francis Andreau, Faculty Advisor; Southwest Academy of Management (SWAM) Annual Conference 2019 – Houston, TX Co-Presenter: "No Wonder My Head is Spinning: A Conceptual Integration and Comprehensive Model of Perceived Environmental Uncertainty (PEU)."; European Academy of Management – 18th Annual Conference – University of Iceland, Reykjavik, Iceland, June 2018; Institute of Business and Industry Intelligence Conference – The Woodlands, TX April 2018, Co-Presenter: "If Increasing Entrepreneurship Is A Possible Answer to Globalism Backlash, What Cultural Characteristics Most Encourage Entrepreneurship?"; SW Fulbright Symposium – San Antonio, TX September 2017 Presenter: "Leading Experiential Learning in International Settings: The New Study Abroad?"; North American Case Research Association – Las Vegas, Nevada October 2016 Defended: "TAKING OVER OPERATIONS OF THE MUSEO ALAMEDA"; and, Globalization of Higher Education Conference, Queen's College Cambridge, March 2014.

Industry 4.0 and Industry Solutions
DISTINGUISHED SPEAKERS

August 10, 2020, Monday, 1:00 – 2:00 pm
Industry Solutions, Zoom Meeting Room 1
Session Chair: Eric Ayanegui, Cintas Corporation, Houston, Texas, USA

1:00 pm - 1:30 pm (Monday, August 10)

Dr. Gursel Suer
Professor, Department of Industrial and Systems Engineering
Ohio University, Athens, Ohio, USA

ID 735: Industrial Engineering Principles for Crisis Management

Gursel A. Suer joined the Industrial and Systems Engineering Department at Ohio University after working 12 years at the University of Puerto Rico-Mayaguez. He is on the editorial board of various journals. He currently serves as the manufacturing area editor of the Computers and the Industrial Engineering Journal. He has co-chaired two Computers and Industrial Engineering Conferences (1997-Puerto Rico, 2005-Istanbul). He also initiated Group Technology/Cellular Manufacturing Conferences held in Puerto Rico (2000), Ohio (2003), Netherlands (2006), and Japan (2009). Most of his research has been motivated by his projects and observations in industrial settings. He has edited seven conference proceedings and three special issues with different journals. He has published more than 110 papers in journals, edited books, conference proceedings and made more than 100 technical presentations. He has also advised more than 40 graduate students. His research interests are cellular system design, production planning, inventory control and multiple assembly design. All Degrees Earned: Ph.D., Industrial Engineering, Wichita State University, 1989; M.S., Industrial Engineering, Middle East Technical University, 1985; and B.S., Industrial Engineering, Middle East Technical University, 1982. Awards are: ISE White Teaching Award, Ohio University, 2009, Baxter Distinguished Professor in Manufacturing, UPR-Mayaguez, Co-holder, (1999-2000), Distinguished Professor of the Industrial Engineering Department, UPR-Mayaguez, (1996-1997), Baxter Distinguished Professor in Manufacturing, UPR-Mayaguez, Co-holder, (1994-1995) and Phi Kappa Phi Honor Society.

1:30 - 2:00 pm (Monday, August 10)

Eric Ayanegui, CPMM, CRL
Director Operations Engineering
Cintas Corporation
Houston, Texas, USA

Mr. Eric Ayanegui is currently the director of Operations Engineering of CINTAS. As one of the technical leaders at CINTAS, he has been directing engineering, reliability, quality and safety initiatives across 210 industrial sites across North America and China. He has over 20 years of experience in the industrial laundry industry and has been involved in industrial leading efforts in Reliability and Safety. He is a member of the CINTAS Corporate Executive Faculty teaching Reliability and a certified Plant Maintenance Manager and Certified Reliability Leader. He is a member of Industrial Engineering Academy of Distinguished Alumni of UH and has served on the advisory board of Industrial Engineering Department at UH since 2015. He holds a BS degree in Industrial Engineering from the University of Houston.

August 12, 2020, Wednesday, 5:15 pm – 6:45 pm
Industry Solutions / Industry 4.0 – Zoom Meeting Room 1
Session Chair: Ryan Treece, Banner Engineering, Berkley, Michigan

5:15 pm - 5:45 pm (Wednesday, August 12)

Foad Hosseinkhanli
Director of Quality Assurance, Performance and Business Improvement
Amor Health Services, Inc.
Brownsville, Texas, USA
Certified Mater Black Belt, Certified Scrum Master, Certified Quality Assurance Engineer

ID 734: How to measure and improve process of Quality Care, Client/patient Complaint and Dissatisfaction in Healthcare Industry by Applying Agile Lean Six Sigma Methodology

Mr. Hosseinkhanli is Director of Quality Assurance, Performance and Business Improvement Amor Health Services, Inc. in Brownsville Texas USA. He was General Manager of Almana Trading in Doha Qatar Middle East and responsible for all aspects in creation and implementing of successful growth of new market development and turn-key operation for various products. Mr. Hosseinkhanli was involved with financial negotiation with national and international banking, corporation, private sources and trading organization. Volvo International Development Corporation, Gothenburg Sweden, Marketing Director For The Middle

Eastern Countries, UAE, Saudi Arabia, Bahrain, Turkey and Iran. Negotiated and established exclusive franchise agreement and turn- key operation. Did market analysis and feasibility studies for Volvo International in the Middle Eastern countries and increase annual sales in excess of 55%. Chief Industrial Engineer, United Carr, manufacturer of plastic knobs for Automotive Industries, Knoxville Tennessee USA. His education background is: Master of Business Administration from IMMEDE Management Institute in Lausanne Switzerland majoring in financing. Bachelor of Science in Industrial and System Engineering from University of Rhode Island in Kingston Rhode Island USA. Certified Business Analyst from International profit Association in Buffalo Grove IL USA. Certified Six Sigma Green and Black Belt from Institute of Industrial Engineers. Extra Curriculum Activity: Senior Member of Institute of Industrial Engineers, Senior Member of ASQ and Senior Member of Swedish Method and Time Measurement Language: Fluent in English, Swedish, German, Turkish, Farsi and some Spanish.

5:45 pm - 6:15 pm (Wednesday, August 12)

Mike Koper, CmfgT, CmfgE, PEM, CoP, CMRP
Sr Director - Industry 4.0 AR Digital Transformation
OPS Solutions, Detroit, Michigan, USA

Mike is the senior director of AR – Industry 4.0 solutions for OPS Solutions LLC of Wixom, Michigan. He specializes in providing customized global workforce strategies blended with augmented reality digital solutions. He provides subject matter expertise for training and competitive insight for digital transformation initiatives. Mike has over 20 years' experience working in and consulting to the manufacturing industry. He has written more than 15 articles in trade magazines authored a six series free E-book "Springboard with Six Sigma" and holds the following certifications: manufacturing engineer, professional engineering manager, maintenance and reliability professional. Mike also has a degree in Engineering from Oakland University and a master's in Management.

Introduction to augmented reality for manufacturers: automate or augment

Synopsis: Augmented reality can provide the leap in productivity that all managers have been seeking for years but have been unable to attain. AR is a blend of advanced technology coupled with human performance. It can improve productivity and reduce or eliminate mistakes. AR can take a good process and make it a best practice, while providing manufacturing innovation and meeting customers' ever-tightening quality requirements (IAFT-16949). It is also scalable. Case studies include an automotive interiors manufacturer achieving a 30% reduction in training cost and time, throughput up 40% and error reduction of 96% with digital certification.

6:15 pm - 6:45 pm (Wednesday, August 12)

Ryan Treece
Automotive Business Manager - IIOT Industry 4.0 Solutions
Banner Engineering, Berkley, Michigan

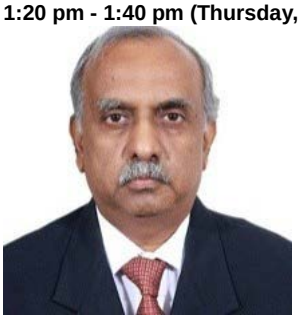
Topic: Industrial Device Inputs/Outputs & Edge Devices

Ryan Treece, a versatile sales professional, spent most of this past decade tinkering with industrial sensors & vision-based inspection systems on plant floors. He helps businesses in the Automotive industry find unique ways to leverage the latest IIOT and Industry 4.0 technology, to solve complex challenges. Currently, as an Automotive Business Manager at Banner Engineering, Ryan works with senior leadership at Global Manufacturers to identify opportunities, and leads teams, to deliver effective Industry 4.0 solutions. A thorough professional, he specializes in creating business development plans for new markets and technologies, market analysis, and sales process improvements. Ryan started as a Sales Engineer, and at a very early stage in his career, he realized the importance of creating and fostering trustworthy relationships. As his career progressed as a sales expert, he was also exposed to solution-based selling and key account management. In 2020, while Ryan has the opportunity to sell a multitude of smart products across industries at Banner, he chooses to focus his skills and expertise to improve automotive processes, automate predictive maintenance and leverage embedded IIoT sensors to tackle large problems. Having been awarded and recognized consistently for his excellent performance, Ryan pictures a world where just like him, passion drives professionals! When not at work, Ryan can be found together with his wife, chasing their three dogs; Lana, Otis, and Leo.

August 13, 2020, Thursday, 1:00 pm - 2:00 pm
Industry Solutions / Industry 4.0 – Zoom Meeting Room 1

Session Chair: Dr. Gajanand Gupta, VIT University, Chennai Campus, Tamil Nadu

1:20 pm - 1:40 pm (Thursday, August 13)



Pranav Srivastava
General Manager
Metso Outotec
Ahmedabad, Gujarat, India

Lean Implementation in Metso Outotec Foundries - Journey so far, Challenges and Way Forward

Pranav Srivastava is a General Manager - Metso India Foundry Hub of Metso Outotec India Private Limited, Indian arm of Finnish Multinational with 4.2 Billion Euro sales in year 2019. He is Industrial Engineer by profession, having 37 years Industry experience in capital Goods sector starting from Larsen & Toubro Ltd. He has been involved 3 startup projects in setting up Green field Production units – First in 1998, second in 2000 an third in 2018, each with employee base of 300 – 350 employees. Pranav has been member of Metallic supply chain of Consumables Business area responsible for Strategy formulation. He has travelled to Brazil, China, Finland, Sweden, and South Africa on business trips of Metso Foundry operations. Pranav led introduction of Lean as Operational excellence program in Production units of Metso in India and other countries. His area of expertise is Low cost automation, Project Management, Cost optimization, Productivity Improvement, and Employee engagement programs. Pranav won CII award as Mentor for Best Quality circle in State level / national competition. He is a member of IISE, AMA and IIIE.

Saurabh Sharma
Operational Excellence and LEAN Coach
Metso India Pvt. Ltd. Ahmedabad and Vadodara Foundries, India

Saurabh Sharma is Operational Excellence and LEAN Coach. He is basically a Mechanical Engineer from Maharshi Dayanand University, Rohtak, Haryana followed by MBA Operations. Currently working as LEAN Coach in Metso India Pvt. Ltd. Ahmedabad and Vadodara Foundries, India. From the beginning of his career he have started implementing LEAN, TPM, Operational Excellence, Continuous Improvement & Business Excellence and now experience of LEAN implementation in business like automobile, textile, chemical & foundry. Most of his experience he was associated with Aditya Birla Group. He is certified Six Sigma Black Belt, Basic Condition Evaluation Champion, QC and Problem Solving tools trainer. He was a facilitator of teams participated and won prices at national competitions of Kaizen, QC & Sustainability in CII (2015, 2017 & 2018) and QCFI (2016, 2017, 2018 & 2019). He is external auditor for Basic Condition Evaluation and implemented BCE Green Level in both old & new organisations followed by achieving Aditya Birla Chairman's WCM Award in 2015 & 2017. In Metso India Pvt. Ltd. he is implementing LEAN culture through developing systems related to 5S, Kaizen, A3 project, TPM Machines, Visual Management, Daily Management & Digital transformation projects.

1:20 pm - 1:40 pm (Thursday, August 13)

Remus Pop
Director - The Connected Factory I4.0
Conway MacKenzie, Inc.
Livonia, Michigan

1:40 pm - 2:00 pm (Thursday, August 13)

Dr. Gajanand Gupta, Ph.D (BITS Pilani)
Assistant Professor (Sr.),School of Mechanical Engineering (SMEC)
VIT University, Chennai Campus
Chennai, Tamil Nadu, India

Gajanand Gupta is a Senior Assistant Professor, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, Tamil Nadu, India. He earned B.E. in Mechanical Engineering from University of Rajasthan, India, Masters in Production Engineering from National Institute of Technology, Rourkela, India and Ph.D. in the field of Reliability Centered Maintenance from Birla Institute of Technology & Science, Pilani, Rajasthan, India. Dr. Gupta was an Assistant Professor in Mechanical Engineering, BITS Pilani, Pilani Campus. He has published more than 20 research papers in international journals and conferences. His research interest include Reliability and Maintenance, Risk and Criticality Analysis, Decision making, FMECA, Maintenance Management. Dr. Gupta visited Singapore, Indonesia and Nepal for professional events. He is a reviewer of many international journals. He is a member of Institute of Engineers, India.

August 13, 2020, Thursday, 5:15 PM - 6:45 PM - Room 1

"Operational Excellence and Supply Chain in the Industry 4.0 Era"

Session Chair: Dr. Mehran Doulat, Xiamen University Malaysia

5:15 pm - 5:45 pm (Thursday, August 13)

Ts. Dr. Mehran Doulat
Director of Centre for Operational Excellence Research (COER)
Associate Professor of Operations and Quality Management
MBA Review Committee/Research Coordinator
Xiamen University, Malaysia

Mehran Doulat is an Associate Professor of Operations and Quality Management and MBA Review Committee and Research Coordinator. He is also working as Senior Researcher in Business Performance Improvement Resource (BPIR) at Massey University, New Zealand. Apart from academics, he is also Co-founder and Director of Spectral Academy for Research, Training and Consultancy (SARTC). He holds a Bachelor of Science in Engineering; double Master's Degrees in Engineering Management (MEM) and Quality Management (MQM) and a PhD from University of Wollongong, Australia. Dr. Doulat has completed 2 years Post-Doctoral Fellowship in the area of Innovation and Performance Excellence. He has more than 15 years of experience related to quality management and business excellence models, supply chain management, performance measurement, and benchmarking methodology. He is a certified EFQM Excellence Assessor and a "TRADE" Certification Best Practice Benchmarking from COER. He served as a Senior Assessor for the Dubai Quality Award (DQA) program since 2007. He has been actively involved in a number of academic–industrial projects and research in United States, Canada, Australia, New Zealand, United Kingdom, Singapore, Malaysia, India, Japan and UAE Service Excellence Program" (2007-2012). He has published more than 80 academic papers and books in leading scientific journals, international conferences. Dr. Doulat serves as the Editorial Board member and Associate Editor/Reviewer for several referred academic journals. He has also been nominated and received several awards for his research contributions

including "the IEEE Outstanding Publication Award in 2012 and 2013", "the IEOM Best Paper Award in 2015 and 2018", "UOW Outstanding Alumni Award in Research and Innovation in 2016", "the IEOM Outstanding Service Award in 2018" and "IEOM Academy of Fellows 2021". He is a registered professional member of AOQ, ASQ, JUSE, MPC and GBN. Dr. Doulat has been working as a visiting scholar and affiliated researcher collaborator at University of Wollongong, Australia, National University of Singapore, Meiji University, Japan, Universiti Teknologi Malaysia, Massey University, New Zealand and Xiamen University, China.

5:45 pm – 6:15 pm (Thursday, August 13)

Dr. Guilherme Francisco Frederico
Professor of Operations and Supply Chain Management
School of Management
Federal University of Paraná
Curitiba, Brazil

Guilherme F. Frederico is a Professor of Operations and Supply Chain Management (SCM) at Federal University of Paraná – UFPR – School of Management, Curitiba, Brazil. He is also Professor and Researcher at Information Management (MSc and PhD) and Business Administration (MSc) programs in this same university. He holds PhD in Industrial Engineering from Federal University of São Carlos – UFSCar. His B.Eng (Civil Engineering) and MSc in Industrial Engineering were obtained from São Paulo State University - UNESP. His research interests and expertise on Supply Chain Management field are related to Maturity Management, Performance Measurement, Project Management, Knowledge Management and Impacts from Industry 4.0. He has published his research outcomes in international journals such as Supply Chain Management an International Journal, International Journal of Productivity and Performance Management, Benchmarking an International Journal, International Journal of Logistics Systems and Management and International Journal of Business Excellence. Prof. Frederico has been also contributed to SCM magazines (e.g. Supply Chain Management Review, Logistics Management) publishing articles with practical insights. Previously the academic career he worked for more than 10 years on SCM field in Global and Large Companies (e.g. Bunge, Deere & Company), involving different segments of Industry including manufacturing and logistics services business.

Panels

Panel on Lean Six Sigma

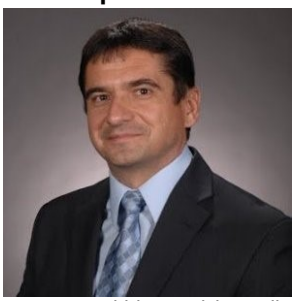
4:00 - 5:00 pm, Monday, August 10, Room 1

Panel Chair

Steven Sibrel
Senior Supplier Quality Manager
Harman International
Novi, Michigan, USA
Professional Development Chair and Past Chair – ASQ Greater Detroit

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

Panel Speakers



Dr. Saso Krstovski, MBB
Lean Manufacturing Coach /Six Sigma Master Black Belt
Van Dyke Transmission Plant
Ford Motor Company, Michigan, USA

Dr. Saso Krstovski works for Ford Motor Company – Van Dyke Transmission Plant as a Lean Manufacturing Coach and Six-Sigma Master Black Belt. With over twenty years of service with Ford Motor Company, Dr. Krstovski has held a multitude of engineering assignments, which includes time working as a Test Engineer, Launch Test Engineer, and Electrical Control Engineer. During his time with Ford Motor Company, Dr. Krstovski has worked in several plant environments and skill teams such as Dearborn Tool & Die Plant, Information Technology, and has held front-line supervision roles managing hourly UAW-Ford production employees. This exposure to new work concepts within Ford has allowed Dr. Krstovski to amass a holistic approach to engineering. As such, Dr. Krstovski has gained an extensive understanding of the Six-Sigma methodologies. As a detail oriented and data-driven engineer, Dr. Krstovski is an invaluable contributor to Ford Motor Company. He is highly distinguished and skilled with problem identification and resolution to avoid time and cost expenditures. Dr. Krstovski recently joined Lawrence Technological University as an Adjunct Professor and is currently teaching in the Engineering Department. Dr. Krstovski's research interests lie in the area of System Optimization. He continues to collaborate actively with researchers at several universities. Dr. Krstovski provides guidance globally to doctoral candidates on dissertation direction. He graduated from Lawrence Technological University with a Doctorate of Engineering in Manufacturing Systems (DEMS). In addition, to his doctorate degree, Dr. Krstovski has a Masters in Electrical Computer Controlled Systems and a Bachelor's of Science in Electrical Engineering from Wayne State University. Dr. Krstovski has authored several publications and scientific articles on various engineering topics.

Dr. Adrian Sumarjadi
Director, Global Operational Improvement & Lean Manufacturing
Magna Powertrain
Toronto, Canada

Adrian holds Bachelor degree in Industrial and Manufacturing Systems Engineering with Minor and Business Administration from University of Windsor, Windsor, Ontario, Canada in 2010. In 2012, He received Lean certification and attended Lean Sigma Green Belt workshop. In addition, He has been a member of PEO (Professional Engineers of Ontario) since early 2014. In August 2016, after spending 3 years of part-time evenings studies, Adrian completed his MBA degree from Wilfrid Laurier University, Waterloo, Ontario, Canada.

Adrian started his very first career working at Toyota Motor Manufacturing Indonesia as a co-op student where he learned the continuous improvement culture in all Toyota's employees. At the next co-op journey, Adrian worked at Hammond Power Solutions, in Guelph, Ontario, Canada for a year practicing basics lean / Kaizen events which he then grew his passion in Continuous Improvement methodologies (Toyota Production Systems, 5S, and other Lean Manufacturing tools). With Kaizen mindset, Adrian helped organizations achieved practical & excellent operational result by significantly improving the 'bottom line' performance while improving its organization's culture. In addition, Adrian worked in a renewable energy industry as a process engineer for over 1 year where he successfully implemented standard operating procedures to the shop floor and improved up-time of plant equipment as one of the key measurable indicators.

Adrian then returned to automotive industry where he started working as Continuous Improvement Coordinator, then promoted to Regional Lean Manufacturing Manager, and is currently taking a responsibility of Global, Director of Operational Improvement for Powertrain Group of Magna International Inc., Canadian based automotive company. His excellent technical and leadership skills develop strong teams and consistently achieve outstanding results across significant assignments from both professional and academic. Adrian's motto is 'as lean practitioner, learning is always a never ending journey'.

Dr. Joseph M. Ogundu
President/CEO
Emerald Global Consulting Inc.
West Bloomfield, Michigan

Dr. Joseph M. Ogundu is the president /CEO of Emerald Global Consulting Inc., a Farmington Hills, Michigan based consulting firm. Dr. Ogundu has extensive experience in academia, leadership, project management, business process excellence, lean transformation, six-sigma, supply chain management and supplier quality, change management, operations, industrial engineering, manufacturing and process engineering, quality engineering and quality assurance. Dr. Ogundu is a lean practitioner and six-sigma practitioner that sees lean six-sigma as operations management philosophy that is based on the relationship between waste reduction and elimination, quality improvement and operations performance measures.

Dr. Ogundu was Adjunct professor, Industrial and Systems Engineering at both Lawrence Technological University, Southfield Michigan and Oakland University, Rochester Michigan, as well Adjunct Professor: Business Administration, Kettering University, Flint Michigan. He thought courses in both undergraduate and graduate levels and the courses were Lean Systems Application, Quality Assurance and Control, Total Quality Management, Operations Research and Stochastic Processes, Manufacturing Processes, Advanced Quality Planning, Supplier Quality, Business Statistics, Lean Six-Sigma, Production Planning and Control, Materials and Inventory Management and Operations Management, Dr. Ogundu worked in the following industries, Automotive, Oil and Gas, Manufacturing, Consulting, Energy and Health Care. Dr. Ogundu is the author of the book “The Relationship between Types of Waste and Operating Performance Measures.

Dr. Ogundu graduated with a Doctorate Degree in engineering and manufacturing systems, Masters in business administration from Lawrence Technological University, Master’s Degree in Manufacturing Engineering from Wayne State University and a Bachelor’s Degree in Industrial Engineering from University of Tennessee. Knoxville, Tennessee. Dr. Ogundu spent the earlier years of his career in engineering, leader and senior management positions as director and executive director at Country Coach Inc, process engineering manager at DaimlerChrysler AG, Senior Operations leader at Chrysler Corporation, facilities engineer and project manager at Ford Motor Company and Senior Product Engineer at General Motors Corporation. Dr. Ogundu has served as board member of Lawrence Tech University College of Management Alumni Association, Finer Cabinetry & Woodwork Inc., Citation Plastics, LLC., River State Foundation Inc., as well as Board member of Health Care Management department at South University Novi, Michigan Campus. Also, he served as Vice President of Chapter Development Institute of Industrial Engineers SE Michigan/Toledo Chapter from 1991 to 1992.

Dr. Annamalai Pandian
Associate Professor
Director, Bachelor of Science in Engineering Technology Management
Department of Mechanical Engineering
Saginaw Valley State University
University Center, Michigan, USA

Annamalai Pandian is an Associate Professor in the Department of Mechanical Engineering at the Saginaw Valley State University, Michigan, USA and the Program Director for B.S. in Engineering Technology Management. He worked for Chrysler corporation for more than 13 years continuously while company changed hands from Daimler to Fiat. He has wealth of Body-In-White (BIW) experience in automotive tooling design and processes. He led an Advance Manufacturing Engineering (AME) team that developed & designed tooling and processes for Small Car, Large Car, Sports Car, Luxury SUV, Jeep, Truck and Minivans. The AME team launched vehicles in the assembly plants all over the North America plants. At any given time, he managed numerous automotive vendors and suppliers budget totaling over $50M. The AME launch team was responsible for proving the throughput and quality of the new vehicles per ISO 9001 & 14001 requirements. Seasoned Professional in Lean manufacturing, Project management, Layout optimization, Automation, PLC, Robotics, Systems Engineering, Simulation, FMEA, DMAIC and Six Sigma. Over the past 10 years, he has taught several mechanical and manufacturing engineering courses, including Engineering Mechanics, CAD, Jigs & Fixtures design, Robotics & Machine Vision, Manufacturing Process Eng., and Manufacturing Systems Design and Simulation, Lean Manufacturing, Engineering Technology Management courses and mentored numerous Senior Design Capstone Projects at SVSU and at the University of Wisconsin-Stout. His research interests include 3D printing, Simulation, Automation, DOE, Robotics, ARMA and ANN. He is a member of ASQ, ASEE, and IEOM. He is also a member of the editorial advisory board for the International Journal of Quality and Reliability Management. Journal paper reviewer for many International Journals. He published more than 20 paper presentations and journal articles.

Diversity & Inclusion Panel
Women in Industry and Academia (WIIA)

5:15 - 6:45 pm, Tuesday, August 11, Room 1

Panel Chair

Cheryl Thompson
Founder and CEO of CADIA
Center for Automotive Diversity, Inclusion & Advancement
Detroit, Michigan

Cheryl Thompson is the founder of the Center for Automotive Diversity, Inclusion & Advancement (CADIA). CADIA supports Diversity and Inclusion for the Automotive Industry by providing professional development for individuals, along with resources, programs and tools that drive organizational evolution. A veteran of the automotive industry, Cheryl has over 30 years of experience at Ford Motor Company and American Axle and Manufacturing in positions ranging from skilled trades, operations, engineering and global leadership. She is trained in diversity and inclusion, career and leadership coaching and is Six Sigma trained and certified as a Black Belt. Cheryl has been recognized as a 2019 Influential Women in Manufacturing Honoree, a 2019 Corp Magazine Salute to Diversity award winner, and is the recipient of two Diversity and Inclusion Awards from Ford Motor Company. A sought-after voice and speaker in the automotive, manufacturing and aerospace & defense industries, Cheryl has performed keynote addresses, workshops and breakout sessions for a number of companies and events, including TEDx Windsor, Women in Manufacturing (WiM), the American Automotive Summit, and Society of Women Engineers (SWE).

Panel Speakers – Diversity and Inclusion

Shannon Dare
Global Technology Planning & Strategy, Body & Chassis
Ford Motor Company, Dearborn, Michigan

Dr. Donna Bell
Global Director, Technology and Features Strategy and Planning
Ford Motor Company, Dearborn, MI

Kirsten Jordan
Crash Safety Engineer
Ford Motor Company

Dr. Julia Gluesing
Business Anthropologist and Research Professor, Wayne State University
Detroit, Michigan, USA

Willie L. McKether, Ph.D.
Vice President for Diversity and Inclusion
University of Toledo, Ohio, USA

Dr. Nancy Philippart
Adjunct Professor and Co-Director for the Global Executive Ph.D. Track
General Partner and co-founder of Belle Michigan

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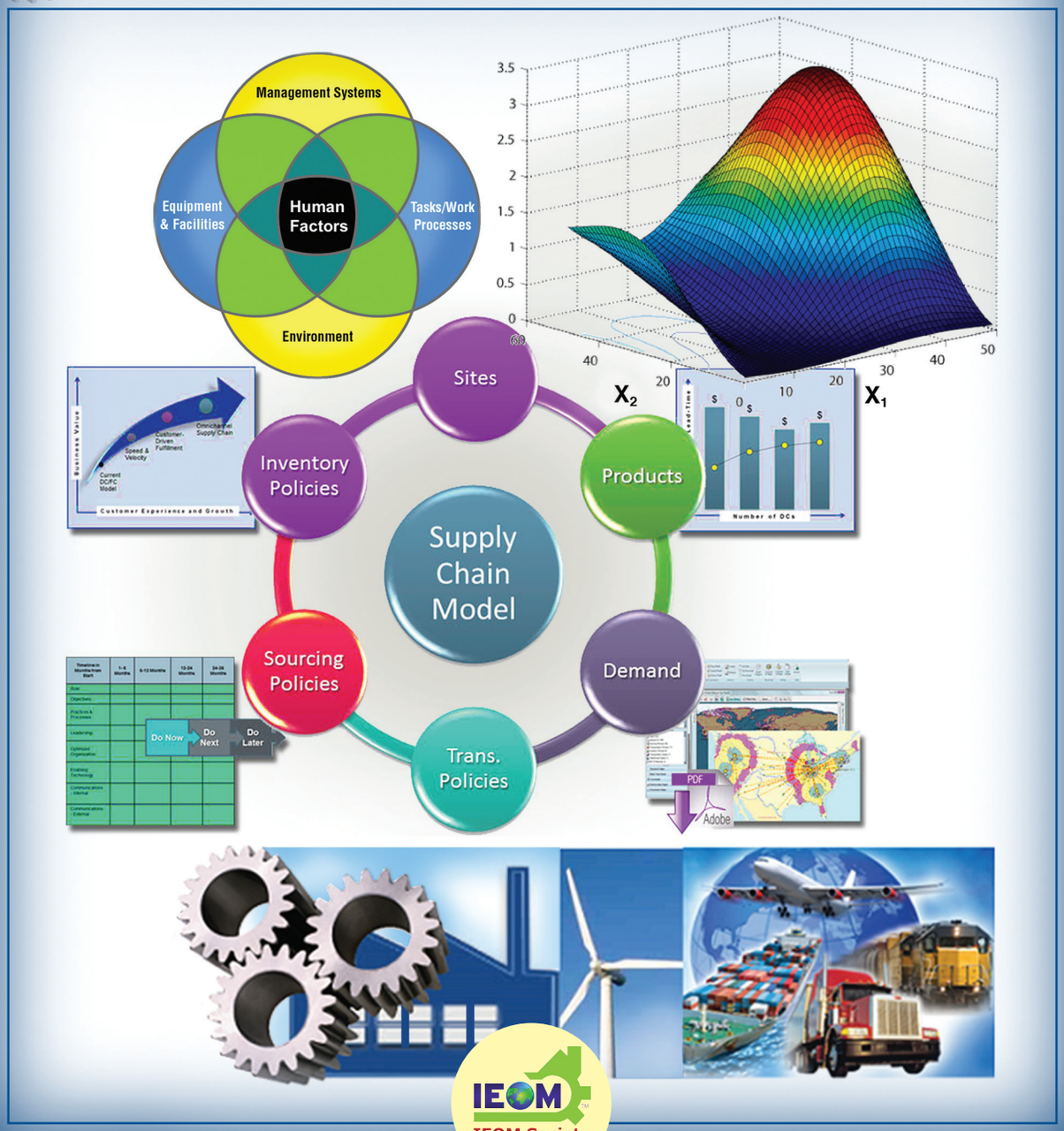

Conference Committee

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Dr. Ahad Ali, Assoc. Professor & Director, Industrial Engineering Program, Lawrence Tech
Dr. Leslie Monplaisir, Professor and Chair, Department of Industrial and Manufacturing Engineering, Wayne State University, Detroit, MI, USA
Dr. Wilkistar Otieno, Associate Professor and Chair, Industrial & Manufacturing Engineering, University of Wisconsin-Milwaukee, USA

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Industry Chairs
Steven Sibrel, Se. Supplier Quality Manager, Harman International, Novi, Michigan, USA
Dr. Saso Krstovski, Lean Manufacturing Coach/Six Sigma Master Black Belt, Van Dyke Transmission Plant, Ford Motor Company, Michigan, USA

Diversity and Inclusion Chairs / Women in Industry and Academia Chairs
Shannon Dare, Global Technology Planning & Strategy, Body & Chassis, Ford Motor Company
Cheryl Thompson, Founder and CEO of CADIA, Center for Automotive Diversity, Inclusion & Advancement, Detroit, Michigan

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Dr. Hayder Zghair, Adjunct Professor, Lawrence Technological University
Dr. Saso Krstovski, Adjunct Professor, Lawrence Technological University
Dr. Andy Pandian, Associate Professor, Saginaw Valley State University, Michigan
Dr. CJ Chung, Professor of Computer Science and Director of Robofest, Lawrence Tech
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Dr. Hamid Parsaei, Professor of Industrial and Systems Engineering, Texas A&M University (College Station)

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Prof. Vikas Kumar, Director of Research and Scholarship and Professor of Operations and Supply Chain Management, Bristol Business School, University of the West of England, UK

Industry 4.0 Chairs
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Dr. Mehran Doulat, Xiamen University Malaysia

Industry Solutions Chair
Dr. Joseph Ogundu, President at Emerald Global Consulting Inc., Detroit, Michigan

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Ing. Jacobo Tijerina Aguilera, University of Monterrey, México

Conference Secretariat
Dr. Taufiqul Islam, Operations Manager, IEOM Society International

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Dr. Samira A. Rahimi, McGill University, Canada
Ehsan Teymourian, Rutgers University, USA

Automation and Agility
Dr. Alok K. Verma, Old Dominion University, Norfolk

Automotive Manufacturing Systems
Dr. Mukdam Kena, Ford Motor Company, Michigan

Business Management
Dr. Luis Rocha-Lona, Instituto Politécnico Nacional, Mexico City, México
Dr. Abdulaziz Ahmed, Program Director, Univ. of Minnesota Crookston

Case Studies
Ghorbanmohammad Komaki, Case Western Reserve University, Cleveland, Ohio

Cellular Manufacturing
Dr. Gursel Suer, Ohio University, Athens, Ohio

CAD, Applications and Computing
Dr. Rushan Ziatdinov, Keimyung Univ., South Korea

Construction Management
Dr. Rakesh Ramnath, The University of the West Indies, St Augustine Campus, West Indies

Cyber Security
Dr. Shamsul Huda, Lecturer in Computer Science, Cyber Security Research and Innovation Centre (CSRI), School of Information Technology, Faculty of Science Engineering and Built Environment, Deakin University, Burwood, VictoriaC, Australia
Dr. Gahangir Hossain, Texas A&M University-Kingsville, Texas

Data Analytics / Business Analytics
Bharat Kolluri, University of Hartford, Connecticut
Mehdi Davoodi, Rutgers University, The State University of New Jersey, New Brunswick, NJ

Decision Sciences
Johanna Trujillo Díaz, Escuela Colombiana de Ingeniería Julio Garavito, Bogotá, Colombia

Design and Analysis
Dr. Mohammadsadegh Mobin, FCA
Dr. Ahsanul Karim, Ford Motor Company, Michigan

Defense and Aviation
Dr. Farshid Azadian, Embry-Riddle Aeronautical University, Daytona Beach, Florida

Energy
Dr. Mohammad Ashraf Hossain Sadi, University of Central Missouri, Kansas City, Missouri

Engineering Education
Dr. Daniel M. Ferguson, Engineering Education, Purdue University, West Lafayette, Indiana

Engineering Management
Dr. Adrian Ramirez Nafarrate, ITAM, Mexico City
Dr. Luz María Valdez de la Rosa, Universidad de Monterrey, Monterrey, Mexico

Environmental Systems Engineering
Dr. Ali ElKamel, University of Waterloo, Canada

Financial Engineering
Cesar Acosta, University of Southern California, Los Angeles, California

Healthcare Operations and Services
Dr. Joonyup Eun, Vanderbilt University, Nashville, Tennessee
Vahab Vahdat, Northeastern University, USA

Human Factors and Ergonomics
Dr. Fabio Frugiero, University of Basilicata, Italy

Industrial Services
Dr. Joseph Ogundu, Emerald Global Consulting, Southfield, Michigan

Information Systems and Management
Dr. Farouq Alhourani, University of Tampa, Florida

Innovation
Dr. Gilson Ditzel Santos, Universidade Tecnológica Federal do Paraná (UTFPR), Pato Branco, Brazil

Inventory Management
Dr. Salvatore Miranda, University of Salerno, Italy

Lean
Dr. Faranak Fathi Aghdam, FCA), Michigan

Logistics
Dr. Shahram Taj, Florida Polytechnic University

Manufacturing
Dr. Ramy Harik, University of South Carolina, Columbia, South Carolina

Mathematical Modeling/Heuristics
Dr. Aidin Delgoshaei, University of Kharazmi, Iran

Modeling and Simulation
Dr. Mohammad Dehghani, Northeastern University, Boston, Massachusetts
Dr. Ali ElKamel, University of Waterloo, Canada

Operations Management
Hans-Jürgen Sebastian, Institut für Wirtschaftswissenschaften, RWTH Aachen, Germany
Dr. Amr Elbadan, University of Business and Technology, Jeddah, Saudi Arabia

Operations Research
Dr. Qipeng Phil Zheng, University of Central Florida
Dr. Azadeh Maroufmashat, Univ. of Waterloo

Optimization
Dr. Mahdi Fathi, Mississippi State University

Product Lifecycle Management (PLM)
Dr. Bill Edwards, Oakland University, Rochester, MI
Md Tanbiruj Jaman, AGCO Corp., Hesston, Kansas

Production Engineering

Dr. José Lázaro Ferraz, Engineering College of Sorocaba – BRAZIL

Production Planning and Management
Dr. Edmund L. Ijumba, Evergreen Packaging, Memphis, Tennessee

Project Management
Dr. Arun Nambiar, California State University, Fresno, California
Afshan Roshani, Permasteelisa North America, Windsor, Connecticut

Quality
Dr. Andy Pandian, Saginaw Valley State University (SVSU), Saginaw Valley, Michigan

Reliability
Dr. Seyed A. Niknam, Western New England University, Springfield, Massachusetts

Sensors and Sensing
Dr. Mukti Rana, Delaware State University, Dover, Delaware

Six Sigma
Saso Krstovski, Ford Motor Company, Sterling Heights, Michigan

Supply Chain / Supply Chain Sustainability / Green Supply Chain
Dr. Faisal Aqlan, Penn State Behrend, Erie, PA

Sustainability
Dr. Amarjit Singh, University of Hawaii at Manoa, Honolulu, Hawaii

Sustainable Manufacturing
Dr. Omar Ashour, Penn State Behrend, Erie, PA

Statistical Process Monitoring
Dr. Mojtaba Pasha, University of Calgary, Canada

Statistics
Dr. Arjun K. Gupta, Bowling Green State University, Bowling Green, Ohio

Systems Dynamics
Dr. Mahdi Bastan, University of Eyvanekey, Iran

Systems Engineering
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Swapnamurti Bhagwat Wagh, MSIE Student, Lawrence Technological University, MI, USA

Parallel Sessions

August 10, 2020 (Monday) - Session: 8:00 – 9:15 am

8:00 – 9:15, MONDAY Operations Management Room 1

Session Chair: Rex Aurelius C. Robielos, Mapua University, Intramuros, Manila, Philippines

ID 488 Constant-Linear and Constant-Quadratic Piecewise Survival Models
Agung Prabowo, Ibnu Ginanjar Susilo, and Agus Sugandha, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Jenderal Soedirman, Indonesia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Gong Badak Campus, 21300, KualaTerengganu, Terengganu, Darul Iman, Malaysia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 300 Forecasting Supply Chain Sporadic Demand Using Principle Component Analysis (PCA)
Nafi Ahmed, Shubho Roy and MD Ariful Islam, Department of Mechanical & Production Engineering, Ahsanullah University of Science & Technology, Dhaka, Bangladesh

ID 155 Water Budget Deviation Control at Commercial Buildings Using Operation & Quality Engineering Approaches
Malek Almobarek, PhD Candidate, Senior Facility Manager, Alfaisal University, Riyadh, KSA
Abdallah Alrshdan & Sobhi Mejjaouli, Industrial Engineering Department, Alfaisal University, Riyadh, KSA

ID 441 An Investigation into underpinning criteria of 'Subjective Happiness' Index in an Educational Environment
Sara Saboor, Alia Al Sadawi, Malick Ndiaye and Vian Ahmed, Department of Industrial Engineering, American University of Sharjah, United Arab Emirates

ID 252 Application of Lean Thinking in Angolan Industrialization Process: The PROFIR Case
Agostinho Alberto, Gerardo J. Osório, Ricardo M. Silva, Tânia M. Lima, and Fernando Charrua-Santos, Centre for Aerospace Science and Technologies (C-MAST), Univ. of Beira Interior, Convento de Santo António, 6200-358, Covilha, Portugal.
Sérgio F. Santos, Institute for Systems and Computer Engineering, Technology and Science (INES-TEC), Eng. Faculty Campus of Univ. of Porto, R. Dr. Roberto Frias, 4200-465 Porto, Portugal

ID 695 Impact Assessment of DOST-SEI Undergraduate Scholarship Program from 2005 to 2014 using Analytic Hierarchy Process (AHP) and Decision Hierarchy Table
Mark Capistrano, Sammuel Sario, and Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

8:00 – 9:15, MONDAY Industrial and Manufacturing Room 2

Session Chair: Henrique Ewbank de M. Vieira, Facens University, Sorocaba, São Paulo, Brazil

ID 067 A Case Study in Topology Optimization for 3D Printing
Latifa Al-Yabhouni, Maitha Al Shamsi, Mariam Al Nuaimi, Dhabya Alketbi, Mariam K Al Nuaimi, and Waleed Ahmed, Mechanical Engineering Department, College Of Engineering, United Arab Emirates University, AL Ain, United Arab Emirates

ID 550 Lean Management Impact in COVID19 Pandemic Era
Siham Tissir, and Said El Fezazi, Laboratoire Process, Signaux, System, Industriel et Informatique, Ecole Supérieure de Technologie SAFI, Université Cadi Ayyad, Morocco
Anass Cherrafi, ENSAM-Meknes, Moulay Ismail University, Morocco

ID 452 Stylistic Design Engineering (SDE) framed inside IDeS (Industrial Design Structure) to conceive a new future citycar
Giampiero Donnici, Leonardo Frizziero, Alfredo Liverani, Sara Aiello, Lorenza Marinelli, and Alfonso Salzano, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 082 The Effect of Managerial Ownership, Institutional Ownership and Independent Commissioners on Voluntary Disclosure in Companies classified as LQ45 Stock Index on the Indonesia Stock Exchange in 2015-2018
Dyah Arum Wigati, Student Faculty of Economics and Business, Universitas Narotama, Surabaya, Indonesia
Avi Sunani, Rony Wardhana, Frenky Yusuf, and Anik Mubiatiningrum, Faculty Economy and Business, Universitas Narotama, Surabaya, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 617 Working condition in glass artware industries and prevalence of the musculoskeletal disorder
Bhawana Rathore, Research Scholar, National Institute of Industrial Engineering, Mumbai, India
Ashok Kumar Pundir, Professor, National Institute of Industrial Engineering, Mumbai, India
Rauf Iqbal, Associate professor, National Institute of Industrial Engineering, Mumbai, India

ID 453 VSM (Value Stream Mapping) Study in an Industry with Financial Analysis and Simulation Model Verification
Isabela Marcon Paula Leite, Monique Yngrid da Silva, Thiago Henrique Brisoti, Adilson Rocha, Henrique Ewbank de M. Vieira, Marco Antonio dos Santos Junior, and Rodrigo Luiz Gigante, Production Engineering, Facens University, Sorocaba, São Paulo, Brazil

8:00 – 9:15, MONDAY **Graduate Student Paper Competition** **Room 3**

Session Chair: Judging Committee Chair - Dr. Saso Krstovski, Ford Motor Company, Michigan

ID 448 Explaining the Price Gap between Voting Shares and Non-Voting Shares
P.M.D. Rasanjani and Suren Peter, Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka

ID 543 Modelling an Automobile Assembly Layout Plant Using Probabilistic Functions and Discrete Event Simulation
Nurul Nadiah Abdul Halim, S. Sarifah Radiah Shariff and Siti Meriam Zahari, Centre for Statistics and Decision Science Studies, Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA, 40450, Shah Alam, Selangor, Malaysia

ID 306 The Skill Gap: Study of Students Readiness against Employers Expectations
Maria Sabastin S. and Desai Sulay, Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

ID 154 Using RFID to Quantify School Bus Evacuation Training Times
Shivaprasad Nageswaran, Leslie A. Gunter, Richard F. Sesek and Gerard (Jerry) A. Davis, Department of Industrial and Systems Engineering, Samuel Ginn College of Engineering, Auburn University, AL 36849-5346, USA

ID 108 Suggested Efficiencies in the Onboarding Process during Mobilization of the 551 Reserve Brigade
Maor Bentov, Ran Mualem and Moshe Gottesman, Logistics Department, Sapir Academic College, Sderot, Israel

Break 9:15 – 9:30 am

9:30 – 9:40 am, Monday, Conference Chair Remarks – **Dr. Leslie Monplasir**, Chair and Professor, Industrial and Systems Engineering Department, Wayne State University

9:40 – 10:20 am: **Opening Keynote**

Dr. Donna Bell

Global Director
Technology and Features Strategy and Planning
Ford Motor Company
Dearborn, Michigan

10:20 – 11:00 Monday Keynote II:

Dr. Jiju Antony

Professor of Quality Management
School of Social Sciences, Edinburgh Business School
Operations and Logistics Group
Heriot-Watt University, Edinburgh, Scotland, UK

11:00 – 11:15 Break

August 10, 2020 (Monday) - Session: 11:15 am – 12:45 pm

11:15 am – 12:45 pm, MONDAY **Operations Management** **Room 1**

Session Chair: Shazia Nauman, Riphah International University Lahore Pakistan

ID 038 Multi-Echelon Inventory Management Policies: A Case Study for a Two-Echelon Supply Chain
Juan P. Escorcia-Caballero and René Amaya-Mier, Department of Entrepreneurship and Management and Industrial Engineering Department Universidad del Norte, Barranquilla, Colombia
Milton Soto-Ferrari, Operations and Supply Chain Management Department, Indiana State University, Terre Haute IN 47807, USA
Odette Chams-Anturi, Department of Economic Science, Universidad de la Costa, Barranquilla, Colombia

ID 481 Prediction System for Heart Disease Based on Ensemble Classifiers
Joshua Emakhu and Sujeet Shrestha, Department of Industrial and Systems Engineering, Wayne State University, Detroit, MI 48201, USA
Suzan Arslanturk, Department of Computer Science, Wayne State University, Detroit, MI 48201, USA

ID 065 Modelling the Maintenance Costs in Commercial Buildings in UAE
Hamed Ahmed AL Laham and Dorid Dalalah, Department of Industrial Engineering and Engineering Management, College of Engineering, University of Sharjah, Sharjah, UAE

ID 239 Towards vaccine administration workload estimation: Development of a vaccine categorization framework
Oladunni Sarah Okunade and Victor Oluwasina Oladokun, Department of Industrial and Production Engineering, University of Ibadan, Nigeria

ID 026 The storage and management of Natural Resources: A case study on water and energy usage and management in hotels in Gauteng
T Y Bhila and E I Edoun, Faculty of Engineering and the Built Environment, Department of Quality and Operations Management
University of Johannesburg, Auckland Park, South Africa

ID 501 Catering the New Product Development through Supplier Integration; the Role of Manufacturing Flexibility and Product Modularity
Shazia Nauman, Riphah School of Business and Management, Riphah International University Lahore Pakistan
Nokhaiz Tariq Khan, Faculty of Business Management, Information Technology University, Lahore, Pakistan
Ayyaz Ameer, Riphah School of Business and Management, Riphah International University Lahore Pakistan

11:15 am – 12:45 pm, MONDAY Technical Track Room 2

Session Chair: Kapil Gupta, University of Johannesburg, South Africa

ID 385 Decision Support System for the Industry 4.0 Environment: Design and Development of a Business Intelligence Tool
Rodrigo Marques, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, Aveiro, Portugal
Ana Moura, Governance, Competitiveness and Public Policies (GOVCOPP), Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, 3010-193, Aveiro Portugal
Leonor Teixeira, Institute of Electronics and Informatics Engineering of Aveiro (IEETA), Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, 3010-193, Aveiro Portugal

ID 196 A review on the current status of facility management practices in building industry and prospective BIM intervention to manage the facilities effectively during its service life
Abdulaziz Aldowayan and Fikri T. Dweriri, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, UAE
Senthilkumar V, Construction Engineering and Management, Indian Institute of Technology Palakkad, Kerala, Palakkad , India

ID 341 Benchmarking Template on Inventory and Turnaround Practices
Musaab Al-Rushood, Department of Industrial Engineering and Engineering Management, College of Engineering, University of Sharjah, UAE
F. Fred Rahbar, Aramco Americas, Houston, Texas, USA
Fikri T. Dweiri, Department of Industrial Engineering and Engineering Management, College of Engineering, University of Sharjah, Sharjah, UAE

ID 207 Implementation of Accident Investigation Recommendations in the Construction Industry in UAE: Common Features and Challenges
Suha Khaswan and Hamad Rashid, Department of Industrial Engineering and Engineering Management, University of Sharjah, UAE

ID 490 Application of Sharing economy to address medical equipment shortage in Covid-19 pandemic
Aamirah Mohammed Ashraf and Walid Abdul-Kader, Department of Mechanical, Automotive and Materials Engineering, University of Windsor, Windsor, ON N9B 3P4, Canada

ID 642 Industry 4.0 and the Role of Human Resource Development in the South African Fabrication and Construction Industry
Uzayr Karimulla, Kapil Gupta, Madindwa Mashinini, Mfundo Nkosi, and Cristina Anghel,Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, 2028, South Africa

ID 035 The Use of Multi-Criteria Decision-Making Methods to Support Risk Prioritisation
Gulsum Kubra Kaya, Department of Industrial Engineering, Istanbul Medeniyet University, Istanbul, 34700, Turkey

11:15 am – 12:45 pm, MONDAY Graduate Student Paper Competition Room 3

Session Chair: Judging Committee Chair - Dr. Saso Krstovski, Ford Motor Company, Michigan

ID 388 A Chart-Matrix on Key Concepts Of Generational Evolution Of Maintenance Management Frameworks: Literature Review
Khotso Dithebe, University of Johannesburg, Johannesburg, GAUTENG, South Africa

ID 603 Modelling and Optimising Hospital Emergency Department Workflow
Ichraq Mohammed Ouhmidou, Ghaida Qadim Bait Kulaib, and Emad Summad, Department Of Mechanical & Industrial Engineering, Sultan Qaboos University, Muscat, Oman

ID 188 Object Tracking with Adaptive Particle Filter Tracker Using Convolutional Neural Network
Azdoud Youssef, Amine Aouatif, and Hachimi Hanaa, Systems Engineering Laboratory, National School of Applied Sciences, Ibn Tofail University of Kenitra – Morocco

ID 360 Using Machine Learning to Assess Solar Energy Grid Disturbances
Jose Ramirez 1, Esteban A. Soto 1, Ebisa Wollega 2, and Lisa B. Bosman 1
1 Purdue Polytechnic Institute, Purdue University, West Lafayette, IN 47907, USA
2 Department of Engineering, Colorado State University – Pueblo, Pueblo, CO 81001, USA

ID 433 Design for Six Sigma Applied to the Design of an Innovative Food Processor
Cecilia Decesari, Leonardo Frizziero, and Alfredo Liverani, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 426 Design study of an innovative system for remote control of home devices using DFSS (Design for Six Sigma)
Dario Calanca, Leonardo Frizziero, Alfredo Liverani, and Giampiero Donnici, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 257 An Inventory Model for Growing Items with Quality Inspections and Permissible Shortages
Abdul Rehman Afzal and Hesham K. Alfares, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia

12:45 – 1:00 Break

August 10, 2020 (Monday) - Session: 1:00 – 2:00 pm

1:00 pm – 2:00 pm, MONDAY **Industry 4.0** **Room 1**

Session Chair: Eric Ayanegui, Cintas Corporation, Houston, Texas, USA

1:00 pm - 1:30 pm (Monday, August 10)

Dr. Gursel Suer
Professor
Department of Industrial and Systems Engineering
Ohio University
Athens, Ohio, USA

ID 735 Industrial Engineering Principles for Crisis Management

1:30 - 2:00 pm (Monday, August 10)

Eric Ayanegui, CPMM, CRL
Director Operations Engineering
Cintas Corporation
Houston, Texas, USA

August 10, 2020 (Monday) - Session: 2:15 – 3:45 pm

2:15 pm – 3:45 pm, MONDAY **Technical Track** **Room 1**

Session Chair: Muhammad Nadeem Akram, University of Windsor, Windsor, Ontario, Canada

ID 305 A Patient-Centered Understanding of the Healthcare Referral System in India
Maria Sabastin S., Akshay Venugopal and Sukanya Sasikumar, Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

ID 522 Entrepreneurial orientation and firm performance: The mediation effect of open innovation in Malaysian furniture industry
Fazal Akbar 1, Prof Dr, Abdul Talib Bin Bon 1 , Dr, Fazli Wadood 2, and Saleh Nasser Abdullah Al-Subari 1
1 Faculty of Technology Management and Business, University Tun Hussein Onn Malaysia, 86400, Johor.
2 Faculty of Management Science, University of Buner Sowari, Khyber Pakhtunkhwa Pakistan

ID 445 The Evolution of E-government Project in GCC Countries
Majed M. Alkhusaili and Zainab M. Aljazzaf, Department of Information Science, College of Life Sciences, Kuwait University, Kuwait

ID 041 Metal decontamination through components of the Washingtonian palm stem
Adrián Eugenio Mijares Guerra, Alejandro José Rivera Sepúlveda, Alejandro S. González González, Eduardo González López, Manuel Carzo López, Mauricio Javier Treviño Salinas, and Rubén Narváez Fuentes, Escuela de Ingeniería y Tecnologías de Información, Instituto Tecnológico de Estudios Superiores de Monterrey, Mexico

ID 777 Reducing Home Energy Usage
Nicholas Egli, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 027 Investment Appraisal Techniques for Sustainable Bio coal Production
M. Mugoronji, Department of Chemical and Process Systems Engineering, School of Engineering and Technology, Harare Institute of Technology, Zimbabwe
M. M. Manyuchi and C. Mbohwa, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
E. Muzenda, Department of Chemical Engineering Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa and Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering and Technology, Botswana International University of Science and Technology, P. Bag 16, Palapye, Botswana
N. Sukdeo, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

2:15 pm – 3:45 pm, MONDAY Technical Track Room 2

Session Chair: Egbe-Etu Emmanuel Etu, Industrial & Systems Engineering, Wayne State University, Detroit, Michigan

ID 508 An In-Depth Study on Challenges Faced By Junior Coal Mining Companies in Mpumalanga South Africa
Henry Ncube, Department of Quality and Operations Management, University of Johannesburg, South Africa

ID 512 Eskom Stockpile Specifications of Coal. A Case Study of Junior Coal Mining Company
Henry Ncube, Department of Quality and Operations Management, University of Johannesburg, South Africa

ID 031 Simulation Models for Multi-echelon Inventory Management Problem: A Literature Review
Nouçaiba Sbai and Abdelaziz Berrado, Equipe AMIPS, Ecole Mohammadia d'Ingénieurs, Mohammed V University in Rabat, Morocco

ID 144 On the Derivation of Complex Linear Models from Simpler Ones
Carla Santos and Cristina Dias, CMA -Center of Mathematics and its Applications -FCT- New University of Lisbon and Polytechnic Institute of Portalegre, Campus da Caparica, 2829-516 Caparica, Portugal
Célia Nunes, Department of Mathematics and Center of Mathematics and Applications, University of Beira Interior, Rua Marquês d'Ávila e Bolama, 6201-001 Covilhã, Portugal
João Tiago Mexia, Department of Mathematics and CMA - Center of Mathematics and its Applications –FCT, New University of Lisbon, Campus da Caparica, 2829-516 Caparica, Portugal

ID 480 Data Security Concerns and Consumers' Trust in Online Business
Bilquis Ferdousi, School of Information Security and Applied Computing, Eastern Michigan University, Ypsilanti, MI 48197, USA

ID 297 Inference for Isolated Matrices and Structured Families of Matrices
Cristina Dias, School of Technology and Management, Polytechnic Institute of Portalegre, and Center of Mathematics and Applications (CMA), Portugal
Carla Santos, CMA -Center of Mathematics and its Applications -FCT- New University of Lisbon and Polytechnic Institute of Beja, Campus da Caparica, 2829-516 Caparica, Portugal
João Tiago Mexia, Department of Mathematics and CMA - Center of Mathematics and its Applications –FCT, New University of Lisbon, Campus da Caparica, 2829-516 Caparica, Portugal

2:15 pm – 3:45 pm, MONDAY Graduate Student Paper Competition Room 3

Session Chair: Judging Committee Chair - Dr. Saso Krstovski, Ford Motor Company, Michigan

ID 477 A 0/1 Knapsack Problem to Optimize Shopping Discount under Limited Budget
Sudhan Bhattarai & Ebisa D. Wollega Department of Engineering Colorado State University-Pueblo Colorado, USA

ID 578 Development of an Ergonomics Model to Enhance Healthcare in Developing Nations
Nawaf Khan, Pamela McCauley and Majid Alshaibi, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, FL 32828, USA
Hamzah Mohamed, Industrial and Manufacturing Systems Engineering Department, University of Benghazi, Benghazi, Libya
Haitham Bahaitham, Industrial and Systems Engineering Department, University of Jeddah, Jeddah, Saudi Arabia

ID 579 An Overview of the effectiveness of mhealth technology in the Developing Countries
Nawaf Khan and Pamela McCauley, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, FL 32816, USA
Ali Almuflih, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, FL 32816, USA
Hamzah Mohamed, Industrial and Manufacturing Systems Engineering Department, University of Benghazi, Benghazi, Libya
Haitham Bahaitham, Department of Industrial and Systems Engineering, College of Engineering, University of Jeddah, Jeddah, Saudi Arabia

ID 610 Enhancing the Productivity of Online learning for Montreal Colleges through Blockchain Technology
Egbuonu Chinedu and Anjali Awasthi, Concordia Institute of Information and Systems Engineering, Montreal, QC H3G 1M8

ID 665 Flexible Model to Design Closed Loop Supply Chain Network under Uncertainties
Murtadha Aldoukhi, Department of Mechanical and Industrial Engineering, College of Engineering, Northeastern University Boston, MA, USA
Surendra M. Gupta, Director of Laboratory for Responsible Manufacturing (LRM), Department of Mechanical and Industrial Engineering, College of Engineering, Northeastern University Boston, MA, USA

ID 359 Identification of Target Market Transformation Efforts for Solar Energy Adoption
Esteban A. Soto, Keita Arakawa, and Lisa B. Bosman, Purdue Polytechnic Institute, Purdue University, West Lafayette, IN 47907, USA

Break 3:45 – 4:00 pm

August 10, 2020 (Monday) - Session: 4:00 – 5:00 pm

4:00 pm – 5:00 pm, MONDAY Global Engineering Education Room 1

Session Chair: Dr. John Blakemore, Adjunct Professor at University of Newcastle, Sydney, Australia

4:00 pm – 4:30 pm (Monday, August 10)

Dr. John Blakemore
Adjunct Professor at University of Newcastle
Blakemore Consulting International
Sydney, Australia

Industry 4.0 and its Vision
4:30 pm – 4:50 pm (Monday, August 10)

Dr. Jenny Díaz-Ramírez
Engineering Department Professor
Universidad de Monterrey
Monterrey, N.L., Mexico

Gamification of an Engineering Course

4:50 pm – 5:10 pm (Monday, August 10)

Dr. Kapil Gupta
Associate Professor
Department of Mechanical and Industrial Engineering Technology
University of Johannesburg
Johannesburg- Republic of South Africa

Some Insights on Industry 4.0

August 10, 2020 (Monday) - Session: 5:15 pm – 6:45 pm

Panel Session – Lean Six Sigma

Panel Chair

Steven Sibrel
Senior Supplier Quality Manager
Harman Internationa
Novi, Michigan, USA
Professional Development Chair and Past Chair – ASQ Greater Detroit

Panel Speakers

Dr. Adrian Sumarjadi
Director, Global Operational Improvement & Lean Manufacturing
Magna Powertrain
Toronto, Canada

Dr. Saso Krstovski, MBB
Lean Manufacturing Coach /Six Sigma Master Black Belt
Van Dyke Transmission Plant
Ford Motor Company, Michigan, USA

Dr. Joseph M. Ogundu
President/CEO
Emerald Global Consulting Inc.
West Bloomfield, Michigan

Dr. Annamalai Pandian
Associate Professor
Director, Bachelor of Science in Engineering Technology Management
Department of Mechanical Engineering
Saginaw Valley State University
University Center, Michigan, USA

6:45 – 7:00 Break

August 10, 2020 (Monday) - Session: 7:00 pm – 10:00 pm

7:00 pm – 10:00 pm, MONDAY Operations Management Room 1

Session Chair: Sukono, Universitas Padjadjaran, Bandung, Indonesia

ID 495 How Using Online Platforms Affects Diagnostic Decision-Making Process in Healthcare Systems
Keivan Sadeghzadeh, Yasaman Asayesh and Linda Nguyen, Department of Decision and Information Sciences, Charlton College of Business, University of Massachusetts Dartmouth, Dartmouth, MA 02747, USA

ID 557 Application of Blockchain Technology in Optimizing E-tailer Supply Chain Costs: Public and Consortium Blockchains
Sahani Rathnasiri and Sardar M. N. Islam, Institute of Sustainable Industries and Liveable Cities, Victoria University, Australia
Pritee Ray, Department of Operations Management, Indian Institute of Management Ranchi, Jharkhand, India

ID 439 A Comparison of TFD & MFD in Identification of Metrics for ED Performance Associated with Medical Surges
Egbe-Etu Etu, Leslie Monplaisir, Celestine Aguwa and Sara Masoud, Department of Industrial & Systems Engineering, Wayne State University, Detroit, MI 48202, USA
Suzan Arslanturk, Department of Computer Science, Wayne State University, Detroit, MI 48202, USA
Ihor Markevych, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA 15213, USA
Joseph Miller, Departments of Emergency Medicine and Internal Medicine, Henry Ford Hospital, Detroit, MI 48202, USA

ID 507 Disaster Preparedness Behavior Based on the Disaster Mitigation and Disaster Preparedness Attitudes of Students of Madrasah Aliyah (Ma) in the City of Bogor
Rita Retnowati, Senior lecturer in the graduate program in environmental management and responsible for courses in biology, Universitas Pakuan, Indonesia
Lufty Hari Susanto, Lecturer in the study program on the teaching of Biology, Faculty of Teaching and Education, Pakuan University, Indonesia
Ekamilasari, Student of Natural Sciences Study Program, Pakuan University, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 502 Estimating Expected Time for Recruitment of Human Resource Companies Health Insurance based on Lomax Distribution
Haposan Sirait, Hasriati and Supriadi Putra, Mathematics Study Program, Faculty of Mathematics and Natural Sciences, Universitas Riau, Pekanbaru, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung, Indonesia.
Kalfin, Doctor Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Johor, Malaysia

ID 505 Ratio Estimator for Population Variations Using Additional information on Simple Random Sampling
Haposan Sirait, Stepi Karolin, Mathematics study program, Faculty of Mathematics and Natural Sciences, Universitas Riau, Pekanbaru, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung, Indonesia.
Kalfin, Doctor Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Johor, Malaysia

ID 619 'Unfreezing' Lean Six Sigma in the Food Industry: An Exploratory Study of Readiness Factors
Nurul Najihah Azalanzazllay and Sarina Abdul Halim-Lim, Faculty of Food Science and Technology, Universiti Putra Malaysia, Selangor, Malaysia

ID 541 Determinre the Enterprise Risk Management Factors Effects on the Malaysian Mtun Universities Performance
Saleh Nasser Abdullah Al-Subari, Rumaizah Ruslan, Shafie Bin Mohamed Zabri, and Fazal Akbar, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia

ID 701 Analysis of the Impact of Traffic Development Apartment
Muhammad, ISRADI and Pradestia, RETNANINGTYAS, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Sumiyati, Faculty of Administration, University Mercu Buana Jakarta, Indonesia

ID 235 Comparative Analysis of Developing Innovation Products on Electric Motorcycle Conversion: Lesson Learned to Commercialization
Achmad Habibie, Wahyudi Sutopo and Murman Budijanto, Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret Surakarta, Indonesia

7:00 pm – 10:00 pm, MONDAY Entrepreneurship and Innovation Room 2

Session Chair: Ma. Janice J. Gumasing, Mapua University, Intramuros, Manila, Philippines

ID 030 Design and Fabrication of Pandan Slitter Machine
Jastin B. Liwanag, Irvin Joearl D. Garcia, Jonathan Miguel P. Ravalo, Vinzwill Christian A. Subaan, and Jaime P. Honra, School of Mechanical and Manufacturing Engineering, Mapua University, 658 Muralla St., Intramuros, Manila, 1002, Philippines
Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, 1002, Philippines

ID 232 A Foldable Product: Implementing Techniques of Product Design Process
Shahriar Tanvir Alam and Israt Humayra, Dept. of Industrial and Production Engineering, Military Institute of Science and Technology, Mirpur Cantonment, Dhaka-1216, Bangladesh

ID 112 Analysis of service quality and customer satisfaction in shoes raw material industry
Akhmad Nasir 1, Damarsari Ratnasahara Elisabeth 2, and Joko Suyono 3, 4.
1 Sekolah Tinggi Ilmu Ekonomi Gempol, Management Department, Gempol Pasuruan, Indonesia
2 Sekolah Tinggi Ilmu Ekonomi Mahardhika, Management Department, Surabaya, Indonesia
3 Narotama University, Department of Management and Business, Surabaya, Indonesia
4 Universitas Airlangga, Management Department, Faculty of Economics and Business, Surabaya, Indonesia

ID 574 Correlations Analysis of Hand Eye Coordination and Agility Athlete Cricket Bekasi City
Memet Muhamad, Mia Kusumawati and Janky Dewi Amar, Islam University "45", Department of Physical Education, Bekasi, Jawa Barat, Indonesia

ID 119 Environmental Observation and Potency of Lindur Fruit (Bruguiera gymnorrhiza) as Alternative Food Substance
Sukian Wilujeng, Sonny Kristianto, Dina Chamidah, and Pramita Laksitarahmi, University of Wijaya Kusuma Surabaya, Indonesia

ID 046 Feasibility Study on Designing Innovative Raincoat Production Company – Economic and Financial Aspect (4)
Zakka Ugih Rizqi and Adinda Khairunisa, Department of Industrial Engineering, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 045 Feasibility Study on Designing Innovative Raincoat Production Company – Management and Operation Aspect (3)
Zakka Ugih Rizqi and Adinda Khairunisa, Department of Industrial Engineering, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 032 A Critical Evaluation of Budget Practices Applied in the Manufacturing Sector for Optimal Production
M. M. Manyuchi and C. Mbohwa, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
E. Muzenda, Department of Chemical Engineering Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa and Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering and Technology, Botswana International University of Science and Technology, P. Bag 16, Palapye, Botswana
N. Sukdeo, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 428 How C2C Communication in Online Communities Influence Customer Purchase Decision?
Aulia Fashanah Hadining, Hani Robi'ah, Kusnadi Kusnadi, and Asep Erik Nugraha, Industrial Engineering Department, Universitas Singaperbangsa Karawang, Karawang, Indonesia

ID 363 E-Business Services Strategy with Financial Technology: Evidence from Indonesia
John Tampil Purba, and Sidik Budiono, Department of Management, Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia
Wilson Rajagukguk, Department of Management Faculty of Economics and Business, Universitas Kristen Indonesia, Jakarta, Indonesia
Perak Samosir, Department of Mechanical Engineering, Institut Teknologi Indonesia, Tangerang Selatan 15314, Indonesia
Gidion P. Adirinekso, Department of Management Faculty of Economics and Business, Universitas Kristen Krida Wacana, Jakarta, Indonesia

7:00 pm – 10:00 pm, MONDAY Technical Track-Industry Solutions Room 3

Session Chair: Philip D. Pretorius North West University, Vanderbijlpark, South Africa

ID 621 Transport Management System for Line Haul Traceability in e-tailing Supply Chains
Sanchita Das, Operations Management Area, Indian School of Business, Hyderabad, Telangana 500032, India

ID 036 Does driver-passenger conversation affect safety on the road?
M Mahachandra 1, 2, H Prastawa 1, 2 and A H Mufid 1
1 Industrial Engineering Department, University of Diponegoro, Semarang, Indonesia
2 Center for Biomechanics, Biomaterial, Biomechatronics, and Biosignal Processing, University of Diponegoro, Semarang, Indonesia

ID 615 Developing Web-Based E-News Application as an IT-Based Facility
Budi Rustandi Kartawinata and Mahir Pradana, Telkom University, Jalan Terusan Buah Batu, Bandung 40257, Indonesia
Dyah Maharani, STIA Maulana Yusuf Banten, JL Trip Jamaksari, No. 44 Kota Serang, Banten 42116, Indonesia
Diki Wahyu Nugraha, M. Yusril Helmi M. Harry K. Saputra, Prodi/Jurusan D4 Teknik Informatika Politeknik Pos Indonesia, Jln. Sari Asih No. 54 Kode Pos 40151 Bandung, Jawa Barat

ID 430 Transaction Monitoring System amongst Agents of Indonesian Post Office
Nandi Irwansyah, Faiza renaldi and Irma Santikarama, Department of Informatics, Universitas Jenderal Achmad Yani, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 355 Dark Side of Economic Growth: A Case Study of the Relationship between Economic Growth and Suicide Mortality
Wilson Rajagukguk, Faculty of Economics and Business, Universitas Kristen Indonesia, Jl. Mayjen Sutojo No.2, Cawang, Jakarta 13630, Indonesia
Perak Samosir, Study Program on Mechanical Engineering, Institut Teknologi Indonesia. Jl.Raya Puspiptek Serpong, Kota Tangerang Selatan
John Tampil Purba and Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia
Gidion P. Adirinekso, Department of Management Faculty of Economics and Business, Universitas Kristen Krida Wacana, Jakarta, Indonesia

ID 633 Deriving Business Failure through the use of Predictive Modelling and Analytical Techniques
Philip D. Pretorius and Nomvula L. Motale, School of Mathematical and Statistical Sciences, Faculty of Natural and Agricultural Sciences, North West University, Vanderbijlpark, South Africa

ID 195 Proposal for the Application of Six Sigma in the Roasted and Grounded Coffee Production Process in Colombia
Juan Camilo García Jiménez, Industrial and Commercial Engineering Department, Santiago de Cali University, Santiago de Cali, Colombia
Sara N. Gallego Urrea, Commercial Engineering Department, Santiago de Cali University, Santiago de Cali, Colombia

ID 321 Dynamic Geofencing in Supervision of Seller Performance
Rizky Rahman Arief, Faiza Renaldi and Fajri Rakhmat Umbara, Department of Informatics, Universitas Jenderal Achmad Yani, Cimahi - Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 358 Increasing Loyalty Using Customer Relationship Management: A Case on Co-working Space Company
Ahmad Fajar Siddiq, Faiza Renaldi and Irma Santikarama, Departement of informatics, Science and Informatics Faculty, Universitas Jenderal Achmad Yani, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 658 A Strategy for Reducing Waste Material of Ready-Mix Concrete Production through Analytical Hierarchy Process (A Case Study)
Kirana Rukmayuninda Ririh, Desinta Rahayu Ningtyas and Dian Utami, Department of Industrial Engineering, Pancasila University, Jakarta Selatan 12640, Indonesia

August 11, 2020 (Tuesday) - Session: 8:00 am – 9:15 am

8:00 – 9:15 am, TUESDAY Operations Management Room 1

Session Chair: Ashok K Pundir, National Institute of Industrial Engineering, Mumbai, India

ID 568 Applying Structural Equation Model to Develop Enterprise Risk Management Model for Malaysian Mtun Universities Performance
Saleh Nasser Abdullah Al-Subari, Rumaizah Ruslan, Shafie Bin Mohamed Zabri and Fazal Akbar, Faculty of Technology Management and Business, University Tun Hussein Onn Malaysia, 86400, Johor, Malaysia

ID 489 Digital Tourism Education Collaboration for Strengthening Micro Business and Post Covid-19 Sustainable Education Models
Eneng Tita Tosida, Lita Karlita Sari, and Aditya Permana, Department of Computer Science, Faculty of Mathematics and Natural Sciences, Universitas Pakuan, Indonesia
Deden Ardiansyah, Department of Computer Technology, Faculty of Diploma, Universitas Pakuan, Indonesia
Fredi Andria, Department of Manajemen, Faculty of Economy, Universitas Pakuan, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 047 "A Comparative Analysis on Retail Atmospherics-A Case Study of Few Selected Branded Retailers in India"
Divya Bharathi, Research Scholar, Dept. of Management Studies, Ballari Institute of Technology And Manage-ment, Visveswaraya Technological University – Karnataka, India
G. P. Dinesh, Professor & Chairman, DOMS, Vijayanagara Sri Krishnadevaraya University - Karnataka, India

ID 498 Number Sequences Likes Fibonacci
Agung Prabowo, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Jenderal Soedirman, Indonesia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Gong Badak Campus, 21300, KualaTerengganu, Terengganu, Darul Iman, Malaysia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 470 Inventory Management of Non- Instantaneous Deteriorating Items Using Particle Swarm Optimization Technique
Pratik Maheshwari, Research Scholar (Industrial Engineering & Manufacturing Systems), National Institute of Industrial Engineering, Mumbai, India
Sachin S Kamble, Professor of Strategy (Operations and Supply Chain Management), EDHEC Business School, Roubaix, France
Ashok K Pundir, Professor of Industrial Engineering & Manufacturing System, National Institute of Industrial Engineering, Mumbai, India

ID 474 Optimal Cholera Vaccine Allocation Policies in Developing Countries: A Case Study
Ahmed Gailan Qasem and Abdulrahman Shamsan, Department of Systems Science and Industrial Engineering, State University of New York at Binghamton, Binghamton, NY 13902, USA
Faisal Aqlan, Department of Industrial Engineering, Penn State University, The Behrend College, Erie, PA 16563, USA

8:00 – 9:15 am, TUESDAY Technical Track-Industry 4.0 Room 2

Session Chair: Abdullatif Ben Hassan, University of Windsor, Windsor, Ontario, Canada

ID 400 Kinect - Based Application System Design for Pencak Silat Movement using Support Vector Machines (SVMs)
Ernest Caesar Omar Syarif, Zener Sukra Lie and Winda Astuti, Automotive and Robotics Engineering Program, Computer Engineering Department, BINUS ASO School of Engineering, Bina Nusantara University, Jakarta 11480, Indonesia

ID 608 Demand forecasting of the energy supply chain in Industry 4.0 era: A Literature Review
Ali Roozbeh Nia and Anjali Awasthi, Concordia Institute for Information Systems Engineering (CIISE), Concordia University, Montreal, Canada
Nadia Bhuiyan, Department of Mechanical, Industrial and Aerospace Engineering (MIAE), Concordia University, Montreal, Canada

ID 398 Innovative Approach to Big Data Analytics Usability
R. M. Nda, Department of Technology Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia. Midland School of Business and Finance, Abuja, Nigeria
R. Tasmin, Department of Technology Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia. Johor, Malaysia

ID 521 A Conceptual Framework of Industrial Revolution 4.0 and Entrepreneurial Orientation: Mediation effect of Innovation on Firm Performance: A Malaysian perspective
Fazal Akbar 1, Dr, Fazli Wadood 2, Prof Dr, Abdul Talib Bin Bon 1 and Saleh Nasser Abdullah Al-Subari 1
1 Faculty of Technology Management and Business, University Tun Hussein Onn Malaysia, 86400, Johor, Malaysia
2 Faculty of Management Science, University of Buner Sowari, Khyber Pakhtunkhwa Pakistan

ID 210 Warehouse Management System of a Third Party Logistics Provider in Malaysia
Vellian Vatumalae Vatumalae, Malaysia University of Science and Technology, Nilai, Negeri Sembilan, Malaysia

ID 103 Vision-Based Operator Activity Recognition System for Personnel Efficiency Analysis
Pamela Lin and Ch'ng Wei Luen, Infineon Technologies Asia Pacific, 8 Kallang Sector, Singapore

8:00 – 9:15, TUESDAY Undergraduate Student Paper Competition Room 3

Session Chair: Judging Committee Chair - Dr. Annamalai Pandian, Saginaw Valley State University, Michigan

ID 299 Development of Dictionary and Checklist Based on WBS (Work Breakdown Structure) of Air Side Facilities in Airport Construction Works for Quality Planning
Fahira Salsabila, Yusuf Latief, Leni Sagita Riantini, and Fadhilah Muslim, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 561 Designing The Iron Sandbag for Knee Osteoarthritis Exercise Tool
Dwi 'Sa Nu 1, Manik Mahachandra 1,2 and Heru Prastawa 1,2
1 Industrial Engineering Department, Faculty of Engineering, Diponegoro University, Semarang, Indonesia
2 Center for Biomechanics, Biomaterial, Biomechatronics, and Biosignal Processing, Diponegoro University, Semarang, Indonesia

ID 066 Feasibility Study of Cellular Manufacturing System in a Wooden Furniture Industry: A Case Study
Raihan Ahmed Joy, Dept. of Industrial and Production Engineering, National Institute of Textile Engineering and Research (NITER), Dhaka, Bangladesh
Himadri Sen Gupta, Department of Industrial and Production Engineering, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh

ID 165 Stock Costs Reduction – Case Study at a Spirit Company
Pnina Tiybi, Inna Shepelev, Sagit-Kedem-Yemini and Yana Karpek, Logistics Department, Sapir Academic College, Sderot, Israel

Break 9:15 – 9:30 am

9:30 – 9:40 am, Tuesday, Conference Industry Co-Chair Remarks – **Dr. Saso Krstovski,** MBB, Lean Manufacturing Coach /Six Sigma Master Black Belt, Van Dyke Transmission Plant Ford Motor Company, Michigan, USA

9:40 – 10:20 am: **Tuesday Keynote I**

Dr. Raj Kawlra
Director
Global Manufacturing Methods and Measurements
Fiat Chrysler Automobiles (FCA)
Auburn Hills, Michigan

10:20 – 11:00 Tuesday Keynote II:

Dr. Seth Guikema
Professor
Department of Industrial and Operations Engineering and
Department of Civil and Environmental Engineering
University of Michigan, Ann Arbor, Michigan, USA
President of Society of Risk Analysis

11:00 – 11:15 Break

August 11, 2020 (Tuesday) - Session: 11:15 am – 12:45 pm

11:15 am – 12:45 pm, TUESDAY Supply Chain Management Room 1

Session Chair: Chowdhury Mahib Ekram, Cisco Technology Bangladesh Limited, Dhaka, Bangladesh

ID 372 Route Optimization Using Saving Matrix Method – A Case Study in Indonesia Public Logistics Company
Tiara Risa Damayanti, Ade Lita Kusumaningrum, Yulia Dwi Susanty, and Sri Susilawati Islam, Industrial Engineering Study Program, Sampoerna University, Jakarta, Indonesia

ID 635 A Multi-Objective Model for Optimization of a Green Closed-Loop Supply Chain Network under Uncertain Demand
Alireza Fallahtafti, and Gary R. Weckman, Department of Industrial and Systems Engineering, Russ College of Engineering and Technology, Ohio University, OH 45701, USA

ID 078 Mathematical Model Formation for Optimizing Transportation Cost for a Multi-Echelon Downstream Supply Chain
Himadri Sen Gupta, Department of Industrial and Production Engineering, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
Labiba Noshin Asha, Department of Industrial Engineering and Management, Khulna University of Engineering and Technology (KUET), Khulna 9203, Bangladesh

ID 375 Blockchain–Internet of things (IoT) Enabled Pharmaceutical Supply Chain for COVID-19
Shashank Kumar and Ashok K. Pundir, Department of Industrial Engineering and Manufacturing System, National Institute of Industrial Engineering, Mumbai, India

ID 062 Supply Planning Through the Industrial Revolutions
Yousra Sfinij and Laila El abbadi, Computer sciences, Logistics and Mathematics Department, National School of Applied Sciences, Ibn Tofail University, Kenitra, Morocco

ID 390 Optimization of upstream supply chain for supplier of first rank in automotive industry
Rim Sghiouri and Chouaib Elhammouchi, Laboratory of System Engineering, MOSIL, ENSA, University Ibn Tofail, Kenitra, 14000 Morocco
Abdellah Abouabdellah, Laboratory of System Engineering, MOSIL, ENSA, University Ibn Tofail, Kenitra, Morocco

ID 622 Fuzzy AHP and Linear Programming Based Decision Support System for Logistics Service Providers Allocation
Sobhi Mejjaouli and Rahaf Albathi, Industrial Engineering Department, Alfaisal University, Riyadh, Saudi Arabia

ID 604 Feasibility study and development of outsourced procurement system utilizing data-mining process
Chowdhury Mahib Ekram, Services Logistics and Operations, Cisco Technology Bangladesh Limited, Dhaka, Bangladesh

11:15 am – 12:45 pm, TUESDAY Energy Room 2

Session Chair: Md Masud Rana, UTA, Arlington, Texas, United States

ID 168 Multiscale Evaluation of Paving Asphalt Binders under Different Aging Environments
Sumon Roy, Graduate Student, Arkansas State University, PO Box 1740, State University, AR 72467, USA
Zahid Hossain, Associate Professor of Civil Engineering, Arkansas State University PO Box 1740, State University, AR 72467, USA

ID 198 Comparison of Machine Learning Algorithms for Wind Speed Prediction
Ahmed Ferdous Antor and Ebisa D Wollega, Department of Engineering, Colorado State University Pueblo, Pueblo, CO 81001, USA

ID 197 Planning Hydroelectric Power Distribution under Uncertain Supply
Govind R. Joshi and Ebisa D. Wollega, Department of Engineering, Colorado State University-Pueblo, Colorado, USA

ID 580 Kernel Density Estimation of Solar Radiation and Wind Speed for South Africa
Thand'uxolo Kenneth Magenuka, Kabeya Musasa and Kayode Timothy Akindeji, Department of Electrical Power Engineering, Durban University of Technology, Durban, South Africa

ID 454 Lower Thukela Bulk Water Supply Scheme High Lift Pump Station Design
Caleb Pillay, Durban University of Technology, Durban, Kwa Zulu Natal, South Africa

ID 555 Reliable State Estimation Algorithm Considering Cyber Attacks in Communication Networks
Md Masud Rana, UTA, Arlington, Texas, United States

11:15 am – 12:45 pm, TUESDAY Undergraduate Student Paper Competition Room 3

Session Chair: Judging Committee Chair - Dr. Annamalai Pandian, Saginaw Valley State University, Michigan

ID 756 Building a Strategic Plan to Encourage Rare Blood Type Donations in the Bedouin Community in the South of Israel
Sagit Kedem-Yemini, Logistics Department, Sapir Academic College, Sderot, Israel

Inbar Markevitch, Eden Avraham, Karin Malka, Coral Gimelberg and Adva Madar, Guilford Glazer Faculty of Business and Management, Ben Gurion University of the Negev, Beer Sheva, Israel

ID 153 How Can Design Thinking and Lean Startup Improve Waste Collection Systems?
Filipe Machado, Faculdade de Ciências e Tecnologia, Universidade NOVA de Lisboa, Caparica, Portugal
Antonio Grilo, UNIDEMI, Departamento de Engenharia Mecânica e Industrial, Faculdade de Ciências e Tecnologia, Universidade NOVA de Lisboa, Caparica, Portugal

ID 680 Harvest Human Kinetic Energy: A Framework for Gym's Wasted Energy Usage
Saeed Rowejeh, Department of Mechanical Engineering, University of Jeddah, Asfan Road, Jeddah 25121, Saudi Arabia
Iba Sounni and Mostafa Fawzy, Dept. of Industrial and Systems Engineering, University of Jeddah, Asfan Road, Jeddah 25121, Saudi Arabia

ID 343 Real-Time Drowsiness Detection Using Computer Vision and Raspberry Pi to Prevent Car & Road Accidents
Aditya Saxena, Birla Institute of Technology and Science, Pilani, Dubai Campus, Academic City, Dubai, UAE

ID 164 Supply Improvement of Crop Protection Materials at Adama Agan Ltd.
Ortal Biton, Shlomi Sroor, Tamar Navon and Sagit Kedem-Yamini, Logistics Department, Sapir Academic College, Sderot, Israel

ID 166 Improving and Streamlining Production Processes at RB-Doors
Alecia Margonowski, Shaked kahani, Yana Karpek and Sagit-Kedem-Yemini, Industrial Management Department, Sapir Academic College, Sderot, Israel

12:45 – 1:00 Break

August 11, 2020 (Tuesday) - Session: 1:00 – 2:00 pm

1:00 pm – 2:00 pm, TUESDAY Industry 4.0 Room 1

Session Chair: Prof. Vikas Kumar, University of the West of England, Bristol, UK

1:00 pm - 1:20 pm (Tuesday, August 11)

Professor Kazim Sari
Vice Rector
Head, Department of Industrial Engineering
Beykent University
Ayazağa Campus, Istanbul, Turkey

1:20 pm - 1:40 pm (Tuesday, August 11)

Prof. Vikas Kumar
Director of Research and Scholarship
Professor of Operations and Supply Chain Management
Bristol Business School
University of the West of England
Bristol, UK

1:40 pm - 2:20 pm (Tuesday, August 11)

Rajesh Ranjan
Fellow@NITIE; Mumbai
UGC-NET (Management)
Assistant Professor, Faculty of Management Studies
Gopal Narayan Singh University
Sasaram, Bihar, India

2:00 – 2:15 Break

August 11, 2020 (Tuesday) - Session: 2:15 – 3:45 pm

2:15 pm – 3:45 pm, TUESDAY Technical Track Room 1

Session Chair: Cristina Dias, Universidade Nova de Lisboa, Portugal

ID 356 Environmental and Economic Impacts of EV Battery Management and State Changes
Muhammad Nadeem Akram and Walid Abdul-Kader, Department of Mechanical, Automotive, and Materials Engineering, University of Windsor, Windsor, Ontario, Canada

ID 443 A Concise Review on Municipal Solid Waste Management in a Pandemic Era: Knowledge Gaps Identified for Developed and Developing Countries
Ayodeji Oluwalana, Facilities Planning and Management, Iowa State University, Ames, IA 50010, USA
Egbe-Etu Etu, Ph.D. Candidate, Department of Industrial & Systems Engineering, Wayne State University, 4815 4th St., Detroit, MI 48202, USA
Theophilus Tenebe, Ph.D., Texas Commission on Environmental Quality, Critical Infrastructure Division, Austin, TX 78711, USA

ID 422 Design of an ecotourism value network to optimize organizational sustainability from green engineering
William E. Mosquera-Laverde, Faculty Administrative and Economic Sciences, Universidad Cooperativa de Colombia, Bogotá D.C, Colombia
Felix A. Cortes-Aldana, Faculty of Engineering, Universidad Nacional de Colombia, Bogotá D.C, Colombia
Oscar A. Vásquez-Bernal, School of Basic Science, Technology and Engineering, Universidad Nacional Abierta y a Distancia UNAD, Bogotá D.C, Colombia

ID 535 Location of a Temporary Site to Earthquake Waste Separation. Case study: Mexico City
Adriana Guadalupe Aguilar Montoya, Ángel Leonardo Bañuelos Saucedo and Flor Hernández Padilla, Mechanical and Industrial Engineering Division, School of Engineering, National Autonomous University of Mexico, Mexico City, Mexico

ID 016 Waste Management in Higher Education Institutions: A State-of-the-art Overview
Danieli Braun Vargas and Lucila Maria de Souza Campos, Department of Production Engineering and Systems, Federal University of Santa Catarina

ID 482 Closing the Loop: Sustainable Material Use of Cardboard to Address Dwindling Market
Ayodeji Oluwalana, Facilities Planning and Management, Iowa State University, Ames, IA 50010, USA
Joshua Emakhu, Ph.D. Student, Department of Industrial & Systems Engineering, Wayne State University, Detroit, MI 48201, USA

2:15 pm – 3:45 pm, TUESDAY Engineering Education Room 2

Session Chair: Jiafu Niu, Purdue University, West Lafayette, Indiana, United States

ID 167 Assessment of Project-Based Effective Learning in Transportation Engineering
Zahid Hossain, Associate Professor of Civil Engineering, Arkansas State University PO Box 1740, State University, AR 72467, USA

ID 419 Three-Dimensional Modeling's Necessary Evil: UV Mapping
Ryan English, Visual & Built Environments, College of Engineering and Technology, Eastern Michigan University, Ypsilanti, MI 48197, USA

ID 156 On the complementarity between performance management and evaluation in education system: Case of Morocco
HIND BENLHABIB, Ecole Mohammadia d'Ingénieurs, Mohammed V University of Rabat, Morocco

ID 099 Supporting Product Development Activities By Reverse Engineering Technique
Mohammed Akerdad, Ahmed Aboutajeddine and Mohammed Elmajdoubi, Mechanical engineering laboratory, Faculty of Science and Technology, Fes, Morocco

ID 001 On Effectiveness Evaluation of Innovative Teaching Techniques- A Case Study in Engineering Education
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

ID 425 Effect of team cohesion on team member effectiveness
Jiafu Niu, Purdue University, West Lafayette, Indiana, United States

2:15 pm – 5:00 pm, TUESDAY Undergraduate Student Paper Competition Room 3

Session Chair: Judging Committee Chair - Dr. Annamalai Pandian, Saginaw Valley State University, Michigan

ID 670 A Modified Method of Nanofabrication Using 2D Semiconductor Materials in Field-Effect Transistor(FET)
Abidur Rahman, Computer Science, Wayne State University
Zhixian Zhou, PI, Department of Physics and Astronomy, Wayne State University
Arthur Bowman, Mentor, Department of Physics and Astronomy, Wayne State University

ID 033 Development of a Water Filter using Diospyros ebenum Based Shell as Primary Raw Material
Enrique Fernando Ayala Hugler, Mario Alberto García Guerra, Andrea Flores Cuellar, María Fernanda Cardoso
Chapa, César Iván del Castillo Madrazo, Luis Garza, and Mauricio Felipe Arcivar García, Students from the Engineering Department of Tecnológico de Monterrey, Campus Monterrey Mexico

ID 499 Improvement and Time Analysis in the Domestic Check-in of an International Airline
Margiory Muñoz, Gabriela Veliz, and Cristhian Aradiel, Science and Engineering Department, Industrial Engineering, Pontificia Universidad Católica del Perú, Av. Universitaria 1801, Lima 32, Perú

ID 090 Primer on the Matriculation Rate of European VC-backed startups
Marta Quadros Brito, Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal
David Cruz e Silva, Centre for Innovation, Technology and Policy Research, IN+, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal
António Grilo, UNIDEMI, Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal

ID 352 Increase of the Production Lines' Performance in a Chewing Gum Confectionery
Mariana García-Carrasco, Paulina Guerrero-Kim, and Verónica Esper-Safi, Industrial and Systems Engineering Program, University of Monterrey, Monterrey, Mexico
Jenny Díaz-Ramírez, Engineering Department, School of Engineering and Technologies, University of Monterrey, Monterrey, Mexico

ID 012 Mercury removal with Mexican tomato used as an ecological filter for the purification of water contaminated by heavy metals
Arturo HERNÁNDEZ-GONZÁLEZ, Beatriz Emilia LOPEZ-PEDRERO, Héctor Rolando SANDOVAL-JUÁREZ, José Carlos LÓPEZ-CANALES, José Luis ROMERO FARRERA, Lorena MADAHUAR-FARIAS, and Víctor Hugo AGUIÑAGAVILLEGAS, Student. Instituto Tecnológico y de Estudios Superiores de Monterrey, Av. Eugenio Garza, Sada 2501 Sur Col. Tecnológico C.P. 64849, Monterrey, Nuevo León, México
Gerardo ESPINOSA-GARZA, Professor and Advisor. Instituto Tecnológico y de Estudios Superiores de Monterrey, Av., Eugenio Garza Sada 2501 Sur Col. Tecnológico C.P. 64849, Monterrey, Nuevo León, México

ID 671 Uniqueness of in-situ Single Shot Technique Using Femtosecond Laser Pulses for Measuring Absolute Carrier-Envelope Phase(CEP)
Abidur Rahman, Computer Science, Wayne State University
Wen Li, Principal Investigator, Department of Chemistry, Wayne State University
Gabriel A. Stewart, Mentor, Department of Chemistry, Wayne State University

ID 689 Decontamination of Mercury in Water using pomegranate shells as filtering
Nancy Lucero Tapia Ruíz, Extension, Consulting and Research Division, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México
María Guadalupe Moreno Treviño, Basic Sciences, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

ID 690 Examining Equipment Condition Monitoring for Predictive Maintenance, A case of typical Process Industry
Rafif Nova Riantama, Abiyyu Dimas Prasanto, Nani Kurniati and Dewanti Anggrahini, Department of Industrial and System Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 684 A Concept Relationship Map for Industry 4.0
Samantha Melnik, Michael Magnotti, Cameron Butts, Carol Putman, and Faisal Aqlan, Pennsylvania State University, The Behrend College, Erie, PA 16563, USA

August 11, 2020 (Tuesday) - Session: 4:00 – 5:00 pm

4:00 pm – 5:00 pm, TUESDAY Global Engineering Education Room 1

Session Chair: Prof. Vitor Mendes Caldana, Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus, Sao Paulo, Brazil

4:00 pm – 4:20 pm (Tuesday, August 11)

Dr. Sarbjit Singh
Hanford, California, USA
Former Associate Professor and Head
Department of Industrial & Production Engineering
Dr. B.R. Ambedkar National Institute of Technology (NIT)
Jalandhar, Punjab, India
Vice President, NITJ Alumni Association

4:20 pm – 4:40 pm (Tuesday, August 11)

Dr. Jean Ann Larson, FACHE, LFHIMSS, FIISE, DSHS
Chief Leadership Development Officer
The University of Alabama at Birmingham (UAB) Health System &
Senior Associate Dean for Leadership Development at UAB's School of Medicine
Birmingham, Alabama

Challenges for Leaders in Healthcare during the Pandemic and Beyond

4:40 pm – 5:00 pm (Tuesday, August 11)

Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
Sorocaba, Sao Paulo, Brazil

Break 5:00 – 5:15 pm

August 11, 2020 (Tuesday) - Session: 5:15 pm – 6:45 pm

Diversity & Inclusion Panel

Women in Industry and Academia (WIIA)

5:15 pm – 6:45 pm, Tuesday, August 11, Room 1

Panel Chair

Cheryl Thompson
Founder and CEO
CADIA, Center for Automotive Diversity, Inclusion & Advancement
Detroit, Michigan

Panel Speakers

Shannon Dare Global Technology Planning & Strategy, Body & Chassis Ford Motor Company, Dearborn, Michigan	**Dr. Donna Bell** Global Director, Technology and Features Strategy and Planning Ford Motor Company, Dearborn, MI	**Kirsten Jordan** Crash Safety Engineer Ford Motor Company
Dr. Julia Gluesing Business Anthropologist and Research Professor, Wayne State University Detroit, Michigan, USA	**Willie L. McKether, Ph.D.** Vice President for Diversity and Inclusion University of Toledo, Ohio, USA	**Dr. Nancy Philippart** Adjunct Professor and Co-Director for the Global Executive Ph.D. Track General Partner and co-founder of Belle Michigan

6:45 – 7:00 Break

August 11, 2020 (Tuesday) - Session: 7:00 pm – 9:00 pm

7:00 pm – 10:00 pm, TUESDAY **Industrial and Manufacturing** **Room 1**

Session Chair: Jorge Kurita, Universidad Nacional de Asunción, San Lorenzo, Paraguay

ID 664 Design and Fabrication of a Window Washer Prototype for High-Rise Buildings
Kevin Paulo Alana, Kim Jasper Carandang, Rica Justine Landingin, Gio Marjohn Medallo, John Paul C. Tagabi, Kim Jason Cabuhat, Nehro Sandrick Cuaresma, Alta Gracia Mamuyac, Juneil Reuben Solis and Engr. Marc Allan Magbitang, School of Mechanical and Manufacturing Engineering, Mapua Universtiy, Manila, Philippines
Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, Mapua Universtiy, Manila, Philippines

ID 040 Supply Chain Network Optimization Strategy in Last-Mile Delivery Using Crowdsourced Approach: A Case Study
Ferdous Sarwar, Associate Professor, Department of Industrial & Production Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka 1000, Bangladesh
Israt Humayra, Navid Anas Sadman, and Azim Sarwar, Department of Industrial & Production Engineering, Military Institute of Science and Technology (MIST), Dhaka 1216, Bangladesh

ID 083 Analysis Fraud Diamond in Detecting Fraudulent Financial Statements In Real Estate And Property Listed In Indonesia Stock Exchange (IDX) YEAR 2015-2017
Vinita Rahmawati, Student Faculty of Economics and Business, Universitas Narotama, Surabaya, Indonesia
Avi Sunani, Rony Wardhana, Bayu Nurcahyo Andini, and Ariyani, Faculty Economy and Business, Universitas Narotama, Surabaya, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 080 Individual Factors Affecting the Audit Quality
Rony Wardhana, Faculty Economy and Business, Universitas Narotama. Surabaya, Indonesia and Student of Doctoral Accounting in Universitas Airlangga, Surabaya Indonesia
Eranio Adam, and Bayu Nurcahyo Andini, Faculty Economy and Business, Universitas Narotama, Surabaya, Indonesia
Heru Tjaraka, Faculty Economy and Business, Universitas Airlangga, Surabaya, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 473 System Approach for Improving the Dependability of Production Systems, State of the Art

Anouar Hallioui, Industrial Techniques Laboratory, Center for Doctoral Studies in Engineering Sciences and Techniques - Faculty of Sciences and Techniques of Fez, SIDI MOHAMED BEN ABDELLAH University, Morocco
Brahim Herrou, Superior School of Technology, BP. 2427 Route d'Imouzzer, Fez Morocco

ID 491 CFD Analysis on Air Ventilation at a Manufacturing Plant as a Tool for Designing Machine Layout, a Case Study
Jorge Kurita and Mirna Limousin, Department of Industrial Engineering, Universidad Nacional de Asunción, San Lorenzo, Central 2160, PARAGUAY
Nicolas Ferreira, Mechatronics Engineering Department, Universidad del Cono Sur de las Américas, Asuncion, PARAGUAY
Jose Ozuna, Plant Supervisor, FLUODER S. A., Villeta, PARAGUAY

ID 693 Prioritization of Programs and Projects of the Department of Science and Technology for Endorsement to the Public Investment Program (PIP) of the National Economic and Development Authority (NEDA) using Analytic Hierarchy Process (AHP)
Maria Corazon M. Balasa, DOST – Central Office, Taguig City, Philippines
Trinmar A. Boado, DOST – MIRDC, Taguig City, Philippines
Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

7:00 pm – 10:00 pm, TUESDAY Energy Room 2

Session Chair: Muhammad Mujahid Rafique, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 538 Energy efficiency policy in Germany and Malaysia: key driving factors
Md. Mizanur Rahman, Aminuddin Saat, Hasan Mohd Faizal and Mazlan Abdul Wahid, School of Mechanical Engineering, Faculty of Engineering, University Technology Malaysia, 81310 Johor Bahru, Johor, Malaysia

ID 365 Measurement Availability of Clean Water and Elementary Teachers towards Income of all Districts and Cities in Indonesia
Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia
John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia
Wilson Rajagukguk, Department of Management Faculty of Economics and Business, Universitas Kristen Indonesia, Jakarta, Indonesia
Perak Samosir, Department of Mechanical Engineering, Institut Teknologi Indonesia, Tangerang Selatan 15314, Indonesia
Gidion P. Adirinekso, Department of Management Faculty of Economics and Business, Universitas Kristen Krida Wacana, Jakarta, Indonesia

ID 450 Transmission Systems: HVAC vs HVDC
Caleb Jordache Pillay, Musasa Kabeya, and Innocent E. Davidson, Faculty of Engineering and the Built Environment, Department of Electrical Power Engineering, Durban University of Technology, Durban, KZN, South Africa

ID 662 Comparison of Energy Efficiency Ratio and Indoor Environmental Quality Factors of a Window-Type and Portable-Type Air Conditioners
Kim Nikko F. Atienza, Franz Joshua B. Jumarang, Mark Allen C. Puen, and Mark Christian E. Manuel, School of Mechanical and Manufacturing Engineering, Mapua Universtiy, Manila, Philippines
Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, Mapua University, Manila, Philippines

ID 201 Energy and Water Conservation in Tap Water Distillation Units
Emad A.M. Abdelghani, Chemical Eng. Dept., Faculty of Eng., Minia University, Minia, P.O. Box 61519, Egypt and Department of Chemical Engineering Technology, Yanbu Industrial College, Royal Commission for Yanbu Colleges and Institutes, P.O. Box 30346, Yanbu Al Sinaiyah 41912- Kingdom of Saudi Arabia
Ibrahim Mustafa, Department of Chemical Engineering Technology, Yanbu Industrial College, Royal Commission for Yanbu Colleges and Institutes, P.O. Box 30346, Yanbu Al Sinaiyah 41912- Kingdom of Saudi Arabia

ID 087 Why Renewable Energy Should Replace Fossil Fuels? – A View Point from the Environmental Impacts of Fossil Fuels
Muhammad Mujahid Rafique, Department of Mechanical Engineering, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 442 A Technical Evaluation Model for deployment of Grid-Connected Open Well Pico Turbine Pumped-Hydro Storage Systems in Nigeria
Oluseye A. Adebimpe and Victor O. Oladokun, Department of Industrial and Production Engineering, University of Ibadan, Nigeria

7:00 pm – 10:00 pm, TUESDAY Environmental and Sustainability Room 3

Session Chair: Lina Gozali, Tarumanagara University, Jakarta, Indonesia

ID 405 IoT-based Disaster Management: A Case of Technological Mitigation in Indonesia
Asep Id Hadiana, Melina and Faiza Renaldi, Department of Informatics, Universitas Jenderal Achmad Yani, Cimahi - Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 397 Sustainable Sediment Management in Reservoirs - An Overview
M. Nda, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia and Department of Civil Engineering, The Federal Polytechnic Bida, Niger State, Nigeria
M. S Adnan, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor Malaysia
M. A. M Yusoff, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor Malaysia
G. S Jiya, Department of Civil Engineering, School of Engineering Technology, The Federal Polytechnic Bida, Niger State, Nigeria
I.Y Ebenehi, Department of Building Technology, School of Environmental Technology, Federal Polytechnic Bauchi, Bauchi State, Nigeria

ID 029 Quantitative and Qualitative Analysis of Indoor Air Quality inside the MRT 3 Train Cabins
Tristan Jeric G. Batutay, Hector S. Cabanban, Fredian Paul S. Serate, Jerome D. Quito, and Engr. Ricky D. Umali, School of Mechanical and Manufacturing Engineering, Mapua University, 658 Muralla St., Intramuros, Manila, 1002, Philippines
Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, 1002, Philippines

ID 206 Rapid urbanization in Dhaka: Sustainable development hampering a lot by destroying environment and ecosystem
Khan Mohammad Elyas, Planning Officer, GIZ Bangladesh, Dhaka-1212, Bangladesh
Advocate Md. Mahabubur Rahman, Legal Advisor (several private companies) and Lawyer Dhaka BAR Association, Dhaka-1000, Bangladesh

ID 641 Sustainability in Additive Manufacturing-A Review
Andre Espach, Department of Mechanical Engineering Science, University of Johannesburg, Johannesburg, Republic of South Africa
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg,Johannesburg, Republic of South Africa

ID 479 Multi agent approach for environmental customer collaboration
Mohamed Dif El Idrissi, Abdelkabir Charkaoui and Abdelwahed Echchatbi, Mechanical, Industrial management and Innovation laboratory, Faculty of Sciences and Technologies University Hassan First, Settat, Morocco

ID 648 Sustainable development: Challenges for Sugar Mills
Maximiliano Arroyo Ulloa, Industrial Engineering Department, Santo Toribio of Mogrovejo Catholic University, Chiclayo, Peru
Maira Arroyo Lujan, Management Department, Decorlux SAC Enterprises, Lima, Peru
Javier Beltran Reyes, Bussiness Intelligence Department, Comercio Group, Lima, Peru

ID 616 The Role of Customer Attitude in Mediating the Effect of Green Marketing Mix on Green Product Purchase Intention in Love Beauty and Planet Products in Indonesia
Budi Rustandi Kartawinata, Telkom University, Jalan Terusan Buah Batu, Bandung 40257, Indonesia
Mahir Pradana, Telkom University, Jalan Terusan Buah Batu, Bandung 40257, Indonesia
Dyah Maharani, STIA Maulana Yusuf Banten, JL Trip Jamaksari, No. 44 Kota Serang, Banten 42116, Indonesia
Hilda Maulida Amani, Telkom University, Jalan Terusan Buah Batu, Bandung 40257, Indonesia

August 12, 2020 (Wednesday) - Session: 8:00 – 9:15 am

8:00 – 9:15, WEDNESDAY Operations Management Room 1

Session Chair: Hwi-Chie Ho, Bina Nusantara University, Jakarta, Indonesia

ID 494 Strengthening the Competitiveness of Micro-Businesses Based on Local Wisdom through Digital Tourism Education Collaboration
Eneng Tita Tosida, Ahmad Muhaimin and Mansyur Hidayat, Department of Computer Science, Faculty of Mathematics and Natural Sciences, Universitas Pakuan, Indonesia
Deden Ardiansyah, Department of Computer Technology, Faculty of Diploma, Universitas Pakuan, Indonesia
Fredi Andria, Department of Manajemen, Universitas Pakuan, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 492 Three-phase Growth Model in Fibonacci Rabbits
Agung Prabowo, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Jenderal Soedirman, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 250 Evaluation of Failure Mode and Effect Analysis in Patient Safety Context
Nouf K. Alammari, Abdulla S. Mohammed, Alanoud A.Alabdouli and Dalal M.Almansoori, Department of Industrial and Systems Engineering, Khalifa University of Science and Technology, Abu Dhabi, 127788, UAE

ID 086 A Study on Six Sigma Project Prioritization and Selection in Healthcare Industry Using KEMIRA-M Method
Fatma Pakdil, Department of Management and Marketing, Eastern Connecticut State University, Willimantic, CT, USA
Pelin Toktaş and Gülin Feryal Can, Industrial Engineering Department, Başkent University, Ankara, Turkey

ID 366 Customer-centric Approach in Managing Sales Growth through Demand Forecasting and Planning
Hwi-Chie Ho and Leonardo, Industrial Engineering Department, Bina Nusantara University, Jakarta, Indonesia

ID 694 Utilization of Goal Programming (GP) and AHP Model in Planning for the Implementation of DOST-PCHRD Capacity Building Programs
Vanessa Neillizzle B. Bartolome and Paula Jane A. de Leon, Department of Science and Technology, Philippine Council for Health Research and Development
Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

8:00 – 9:15, WEDNESDAY Technical Track Room 2

Session Chair: Sadaf Zahoor, University of Windsor, Windsor, Canada

ID 170 The Effect Of Good Corporate Governance (GCG) And Corporate Social Responsibility (CSR) On Tax Management (Study of Manufacturing Companies Listed on the Indonesia Stock Exchange)
Yolan Peruca Rosa, Nurul Aini, Rony Wardhana, Ariyani, Anik Mubiatiningrum, and Rudi Harianto, Faculty Economy And Business, Narotama University, Surabaya, Indonesia

ID 100 Estimation of Cost of Quality of a Garment Manufacturing Line to Reduce Cost of Failure
Muhammad Babar Ramzan, Mirza Mahmood Akhter, and Ateeq ur Rehman, Department of Garment Manufacturing, National Textile University, Faisalabad, Pakistan

ID 421 Identification of Cavendish Banana Maturity Using Convolutional Neural Networks

Yusuf Andas Ramadhan, Esmeralda C. Djamal and Fatan Kasyidi, Department of Informatics, Jenderal Achmad Yani University, West Java, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 004 Finite Element Analysis of Machining of Nickel based Superalloy Inconel 600
Adam Khan M and Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

ID 551 Prediction of Results of a so Soccer Match at the World Cup Using Backpropagation
Falano Rajib, Esmeralda C.Djamal, and Fatan Kasyidi, Department of Informatics, Jenderal Achmad Yani University, West Java, Indonesia.
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 246 EDM Die Sinking of Tool Steel: Performance Evaluation of Electrode Materials for Surface Roughness and Dimensional Accuracy
Sadaf Zahoor and Walid Abdul-Kader, Department of Mechanical, Automotive, and Materials Engineering, University of Windsor, Windsor, Canada
Amjad Hussain, Aftab Ahmad Rao, Department of Industrial and Manufacturing Engineering, University of Engineering and Technology, Lahore, Pakistan

8:00 – 9:15, WEDNESDAY Logistics and Supply Chain Competition Room 3

Session Chair: Judging Committee Chair – Dr. Hayder Zghair, Adjunct Professor, Lawrence Tech, Michigan

ID 542 Food Supply Chain Optimization Modelling in the Rice Crop Post Harvesting in the Philippines: An Agroecological Approach in Food Sustainability
Ma. Patricia Aiyn S. Ortañez, Ross Dale Marie Z. Villaruel, Renzel A. Marañon, Kimberly Kim S. Latorza, and Yoshiki B. Kurata, Industrial Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

ID 379 Optimal Temperature in Cold Storage for Perishable Foods
Siti Aishah Hadawiah Ahmad, and Ariff Azly Muhamed, Department of Mechanical and Manufacturing, The National University of Malaysia, Selangor, Malaysia

ID 234 Lesson Learned of Business Strategy for Commercializing an E-Motor Cycle Technology: A Comparative Study
Silvi Istiqomah, and Wahyudi Sutopo, Master Program of Industrial Engineering Department, Universitas Sebelas Maret, Surakarta, Indonesia
Rina Wiji Astuti, CEO of Start Up Technology, PT Batex Energi Mandiri, Surakarta, Indonesia

ID 233 Optimization of Network Design for Charging Station Placement: A Case Study
Silvi Istiqomah, and Wahyudi Sutopo, Master Program of Industrial Engineering Department, Universitas Sebelas Maret, Surakarta, Indonesia

ID 077 Disinfectant Shortage: A Multicountry Comparison of Breweries and Distilleries Responses to the COVID-19 Pandemic
Christian Thomas Nis Nissen, Department of Industrial Engineering, University of Applied Sciences Munich, 80335 Munich, Germany
Niklaus Bendicht Bangerter School of Engineering and Architecture Lucerne University of Applied Sciences and Arts, 6048 Horw, Switzerland
Louis Tran, Michael Thomas Bobke and Mohamed Awwad, Department of Industrial and Manufacturing Engineering, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 148 Effects of the COVID-19 Pandemic on the Grocery Retail Supply Chains
Cassie Harriman, Marcos Diaz-Infante, Tara Loayza, Stephanie Lee, Kyle Detwiler and Mohamed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 685 Optimal Temperature in Cold Storage for Perishable Foods
Siti Aishah Hadawiah Ahmad, Mohd Nizam Ab Rahman and Ariff Azly Muhamed, Department of Mechanical and Manufacturing, The National University of Malaysia, Selangor, Malaysia

Break 9:15 – 9:30 am

9:30 – 9:40 am, Wednesday, Conference Co-Chair Remarks – **Dr. Wilkistar Otieno**, Associate Professor and Chair Industrial & Manufacturing Engineering, University of Wisconsin-Milwaukee

9:40 – 10:20 am: **Wednesday Keynote I:**

Cheryl Thompson
Founder and CEO
CADIA - Center for Automotive Diversity, Inclusion & Advancement
Detroit, Michigan

10:20 – 11:00 Wednesday Keynote II:

Dr. Jeffrey Abell
Director, Manufacturing Systems Research Lab

Chief Scientist for Global Manufacturing
Global Research & Development
General Motors Company, Warren, Michigan

11:00 – 11:15 Break

August 12, 2020 (Wednesday) - Session: 11:15 am – 12:45 pm

11:15 am – 12:45 pm, WEDNESDAY Technical Track-Industry 4.0 Room 1

Session Chair: Patrick Dallasega, Free University of Bozen-Bolzano, Bozen, Italy

ID 367 Application of Artificial Intelligence in Small and Medium-Sized Enterprises
Christoph Szedlak, Patrick Poetters and Bert L eyendecker, University of Applied Sciences Koblenz, Faculty of Operations Management, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

ID 006 Assessing the Synergies and misalignments between Lean and Industry 4.0 practices in today's manufacturing shop-floors
Antonio Sartal, Faculdade de Ciencias e Tecnologia, Universidade Nova de Lisboa, Campus Universitario, Caparica 2829-516, Portugal
Josep Llach, Mechanical and Industrial Engineering Department, Campus de Montilivi, 17071 Girona

ID 493 Contribution of Industry 4.0 Technologies to Mitigating Pandemic Contagion and Proliferation
A. Ashraf and W. Abdul-Kader, Department of Mechanical Automotive and Materials Engineering, University of Windsor, Windsor ON, Canada

ID 451 Comprehensive Review on the Challenges that Impact Artificial Intelligence Applications in the Public Sector
Mohammed Al Mutawa, Industrial Engineering and Engineering Management Department, University of Sharjah, Sharjah, UAE

ID 613 Role of Industry 4.0 in Project Management
Priyanka Verma, and Miral Parikh, NITIE - National Institute of Industrial Engineering, Mumbai, India
Vijaya Dixit, Indian Institute of Management, Ranchi, India

ID 446 Comparison of Industry 4.0 Requirements between Central-European and South-East-Asian Enterprises
Manuel Woschank, Elena Del Rio, and Helmut E. Zsifkovits, Industrial Logistics, Montanuniversitaet Leoben, Leoben, Austria
Patrick Dallasega, Faculty of Science and Technology, Free University of Bozen-Bolzano, Bozen, Italy

11:15 am – 12:45 pm, WEDNESDAY Industrial and Manufacturing Room 2

Session Chair: Javier Cruz Salgado, Universidad Politécnica del Bicentenario. San Juan de los Durán. Silao Guanajuato, México. C.P.

ID 592 Contribution of Industry 4.0 to OEE Improvement
Abdullatif Ben Hassan and Walid Abdul-Kader, Mechanical, Automotive & Materials Engineering, University of Windsor, Windsor, Ontario, Canada

ID 659 Perspectives on Requirements of Informational Sustainable Short Food Supply Chain Platform
Funlade T. Sunmola and Patrick R. Burgess, School of Engineering and Computer Science, University of Hertfordshire, Hatfield, Hertfordshire, UK

ID 554 Model-Free Innovative Robot Tracking Algorithm Using Reinforcement Learning Process
Md Masud Rana, UTA, Arlington, Texas, United States

ID 076 Reinforcing the internet of things by Neural Network to enhance the Ventilator processes' reliability via Poka-Yoke wirelessly to combat Covid19
Ahmed M. Abed1, 2 5
1 Department of Industrial Engineering, Zagazig University, Zagazig, Egypt
2 Department of Industrial Engineering, AIET, Alex, Egypt
Tamer S. Gaafar, Department of Computer and systems Engineering, Zagazig University, Zagazig, Egypt

ID 639 Processing of Nanocomposites for Biomedical Applications
V. Kavimani and P.M. Gopal, Department of Mechanical Engineering, Karpagam Academy of Higher Education, Coimbatore, Tamil Nadu, India
Kapil Gupta, Mechanical and Industrial Engg. Technology, University of Johannesburg, Johannesburg-RSA

ID 081 Slack-Variable Model In Mixture Experimental Design
Javier Cruz Salgado, Universidad Politécnica del Bicentenario. Dpto. Investigación y Desarrollo Tecnológico. San Juan de los Durán. Silao Guanajuato, México. C.P.
Roxana Zaricell Bautista-López, Universidad Politécnica del Bicentenario. Ingeniería Robótica. San Juan de los Durán. Silao Guanajuato, México. C.P. 36283

Edgar Augusto Ruelas-Santoyo, 3Instituto Tecnológico Superior de Irapuato. Maestría en Ingeniería Industrial. Carretera Irapuato-Silao km 12.5. El Copal. México

11:15 am – 12:45 pm, WEDNESDAY Logistics and Supply Chain Competition Room 3

Session Chair: Judging Committee Chairs – Dr. Hayder Zghair, Adjunct Professor, Lawrence Tech, Michigan

ID 115 A Cross-Industry Study Identifying Enabling Factors of Supply Chains that Successfully Responded to COVID-19
Hana Chitgari, Jorden Carroll, Gudrun Derickson, Sarah McRory, Karlyn Tremaine and Mohamed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 110 Case Study Review of the Effects of COVID-19 on the Supply Chain of Manufacturing Companies in California
Camille Garlick, Mitchell McMillan, Roxanne Peterson, Timothy Scheuermann, Kyle Smith and Mohamed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 187 The Impact of COVID-19 on the Pharmaceutical Supply Chain
Sydney Strong, Prescott Delzell, Walter Trygstad, Garrett Fitzpatrick, Piper Haley-Hyer, Ashley Bates and Mohamed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 273 A Modified Firefly Algorithm for Global Optimization of Supply Chain Networks
Abdulhadi Altherwi, Department of Industrial Engineering, Jazan University, Jazan, Saudi Arabia and Department of Industrial & Systems Engineering, Oakland University, Rochester, MI 48309, USA
Mohamed Zohdy, Department of Electrical & Computer Engineering, Oakland University, Rochester, MI 48309, USA
Richard Olawoyin, Department of Industrial & Systems Engineering, Oakland University, Rochester, MI 48309, USA
Daw Alwerfalli, A. Leon Linton Department of Mechanical Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 634 Blending Six Sigma and Innovation Tools to Improve Quality Healthcare Delivery
Mouna Squalli Houssaini and Ahmed Aboutajeddine, Laboratory of Mechanical Engineering, Faculty of Science and Technology of Fez, Sidi Mohamed Ben Abdellah University, Fez, Morocco
Imane Toughrai, Laboratory of Epidemiology, Clinical Research and Community Health, Hassan II University Hospital, Fez, Morocco

ID 111 Harnessing the power of Lean Six Sigma in Retail Store
Babar Bilal Bhatti, Chief Excellence Officer at Bilal Consultancy Private Limited, Lean Six Sigma Master Black Belt
Shahroz Ahmad Lodhi, CEO GreenStore, MBA Supply Chain Management

12:45 – 1:00 Break

August 12, 2020 (Wednesday) - Session: 1:00 – 2:00 pm

1:00 pm – 2:00 pm, WEDNESDAY Global Engineering Education Room 1

Session Chair: Dr. Ilham Kissani, Al Akhawayn University, Ifrane, Morocco

1:00 pm – 1:20 pm (Wednesday, August 12)

Dr. Shaligram Pokharel
Professor
Department of Mechanical and Industrial Engineering
Qatar University
Doha, Qatar

1:20 pm – 1:40 pm (Wednesday, August 12)

Dr.-Ing. Patrick Dallasega
Assistant Professor
Industrial Engineering and Automation
Faculty of Science and Technology
Free University of Bozen-Bolzano
Bozen-Bolzano Italy

Industry 4.0 Implications for Future Engineering Education

1:40 pm – 2:00 pm (Wednesday, August 12)

Dr. Ilham Kissani
Assistant Professor of Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

2:00 – 2:15 Break

August 12, 2020 (Wednesday) - Session: 2:15 – 3:45 pm

2:15 pm – 3:45 pm, WEDNESDAY Supply Chain and Logistics Room 1

Session Chair: Carla Santos, Departamento de Matemática e Ciências Físicas, Instituto Politécnico de Beja, Portugal

ID 674 A Hybrid Framework to Select Logistics Service Providers
Sajad Ebrahimi, Department of Transportation, Logistics, and Finance, North Dakota State University, Fargo, ND 58105, USA
Bahareh Golkar, Department of Agribusiness and Applied Economics, North Dakota State University, Fargo, ND 58108, USA

ID 432 Design For Six Sigma (DFSS) applied to an innovative High-Speed Train Bogie
Leonardo Frizziero, Ye Haoyang, Alfredo Liverani, and Giampiero Donnici, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 380 The impact of the inter-organizational coordination on the performance of downstream logistics for the automotive compa
Chouaib ELHAMMOUCHI and Rim SGHIOURI, Laboratory of System Engineering, MOSIL, ENSA, University Ibn Tofail, Kenitra, 14000 Morocco
Abdellah ABOUABDELLAH, Laboratory of System Engineering, MOSIL, ENSA, University Ibn Tofail, Kenitra, Morocco

ID 438 A new simple and effective Metaheuristic to solve the vehicle routing problem with cross docking
Sanae LARIOUI, and Rim MARAH, ENSIT Engineering School, Laboratory Systems, Control & Decision, Tangier, Morocco
Mohamed REGHIOUI, and Abdellah EL FALLAHI, ENSATE, University of Abdelmalek Essaadi, Mhannech II, BP 2121 Tetouan Morocco

ID 089 Vehicle Routing for the Collection of Packaging Waste: A Case of Local Municipality
Eren Özceylan and İbrahim Miraç Eligüzel, Department of Industrial Engineering, Gaziantep University, Gaziantep, 27100, Turkey
Barış Özkan, Department of Industrial Engineering, Ondokuz Mayıs University, Samsun, 55020, Turkey

ID 364 Optimization of delivery of order routes in a clothing and accessories trading company in metropolitan Lima
Cordova A. Bruno, Sotomayor A. Claudia and Gamboa R. Tania, Department of Industrial Engineering, Pontificia Universidad Católica del Perú, Lima, Perú

2:15 pm – 3:45 pm, WEDNESDAY Technical Track-Industry Solutions Room 2

Session Chair: Mark Dolsen, TRQSS Inc., Tecumseh, Ontario Canada

ID 431 Innovative methods like IDeS and SDE to design a future family car
Leonardo Frizziero, Alfredo Liverani, Roberta Coniglio, Alessia Di Rella, Monica Montuschi and Giampiero Donnici, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 008 Optimization of Review Periods and (s, S) Levels of Floor Stock Items in a Paint Production Environment
Banu Yetkin Ekren, and Gizem Mullaoğlu, Department of Industrial Engineering, Yasar University, Izmir, Turkey

ID 301 Comparative Analysis of Different Fly Ash Percentage of Pozzolanic Cement
Busola D. Olagunju and Oludolapo A. Olanrewaju, Department of Industrial Engineering, Faculty of Engineering and the Built Environment, Durban University of Technology, Durban, South Africa

ID 434 A Fault Tree Analysis (FTA) Based Approach for Construction Projects Safety Risk Management
Tarik Bakeli and Adil Alaoui Hafidi, Mechanics and Civil Engineering's laboratory. Faculty of Sciences and Techniques, Abdelmalek Essaadi University. Tangier, Morocco

ID 402 A Resilient Vendor Selection Approach
Ahmed Mohammed, Faculty of Transport & Logistics, Muscat University, Al Ghubra North, Muscat, Oman

ID 124 Tradeoff Curves for Target Costing of Assembly Processes
Mark Dolsen, TRQSS Inc., Tecumseh, Ontario Canada

2:15 pm – 3:45 pm, WEDNESDAY Lean Six Sigma Competition Room 3

Session Chair: Judging Committee Chair - Dr. Joseph M. Ogundu, Emerald Global Consulting Inc., West Bloomfield, Michigan

ID 353 Sustainable Performance Indicators in Process Planning for Combined Additive and Subtractive Manufacturing Technologies in a Remanufacturing Context
Fouzia Baki, Mechanical, Automotive, & Materials Engineering, University of Windsor, Windsor, ON N9B 3P4, Canada
M. Fazle Baki, Odette School of Business, University of Windsor, Windsor, ON N9B 3P4, Canada
Ahmed Azab, Mechanical, Automotive, & Materials Engineering, University of Windsor, Windsor, ON N9B 3P4, Canada

ID 163 Using Design of experiment &Steepest Ascent Methodologies to Improve Air Leak Testing in Engine Block Manufacturing System
Khaleel Al ithawi and Kingman Yee, A. Leon Linton Department of Mechanical Engineering, Lawrence Technological University, Southfield, MI, USA
Sabah Abro, Engineering Technology Department, Lawrence Technological University, Southfield, MI 48075, USA
M. Ishtiaq Hussain, General Motors Powertrain Pontiac, 823 Joslyn Ave Pontiac, Michigan

ID 591 On Socioeconomic Impacts of Technological Advancements in Healthcare
Pawan Bhandari and M. Affan Badar, Department of Applied Engineering and Technology Management, Indiana State University, Terre Haute, IN 47809, USA
Vincent Childress, Department of Graphic Design Technology, North Carolina A&T State University, Greensboro, NC, USA

ID 475 Development of a Scoring Methodology for Ergonomic Risk Assessment in the Workplace
Abdulrahman Shamsan and Ahmed Gailan Qasem, Department of Systems Science and Industrial Engineering, State University of New York at Binghamton, Binghamton, NY 13902, USA
Faisal Aqlan, Department of Industrial Engineering, Penn State University, The Behrend College, Erie, PA 16563, USA

ID 483 A Fuzzy Algorithm to Dynamic Flow Shop in Industry 4.0
Rodrigo Luiz Gigante and Henrique Ewbank de M. Vieira, Production Engineering, Facens University, Sorocaba, São Paulo, Brazil

ID 326 Identifying the Substantial Big Data (BD) Aspects to Improve Product Engineering Design
Elmira Mohebi and Yvan Beauregard, Dept. of Mechanical Engineering, École de technologie supérieure (ÉTS) University, Montreal, Quebec, Canada

Break 3:45 – 4:00 pm

August 12, 2020 (Wednesday) - Session: 4:00 – 5:00 pm

4:00 pm – 5:00 pm, WEDNESDAY **Global Engineering Education** **Room 1**

Session Chair: Fernando Monroy, The University of Texas at El Paso, Texas, USA

4:00 pm – 4:10 pm (Wednesday, August 12)

Sibrina N. Collins, Ph.D.
Executive Director
The Marburger STEM Center
Lawrence Technological University
Southfield, Michigan

4:10 pm – 4:30 pm (Wednesday, August 12)

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

ID 733 Re-Engineering Peer Collaboration through Cognitive Coaching: Paradigm Shift from Andragogy to Heutagogy

4:30 pm – 4:50 pm (Wednesday, August 12)

Dr. Saman Hassanzadeh Amin
Assistant Professor
Mechanical and Industrial Engineering Department
Ryerson University
Toronto, Ontario, Canada

4:50 pm – 5:10 pm (Wednesday, August 12)

Dr. Fernando Monroy
Student STEAM Success Coordinator
The University of Texas at El Paso
El Paso, Texas, USA

August 12, 2020 (Wednesday) - Session: 5:15 pm – 6:45 pm

Industry Solutions

5:15 pm - 5:45 pm (Wednesday, August 12)

Foad Hosseinkhanli
Director of Quality Assurance, Performance and Business Improvement
Amor Health Services, Inc.
Brownsville, Texas, USA
Certified Mater Black Belt, Certified Scrum Master, Certified Quality Assurance Engineer

ID 734 How to measure and improve process of Quality Care, Client/patient Complaint and Dissatisfaction in Healthcare Industry by Applying Agile Lean Six Sigma Methodology

5:45 pm - 6:15 pm (Wednesday, August 12)

Mike Koper, CmfgT, CmfgE, PEM, CoP, CMRP
Sr Director - Industry 4.0 AR Digital Transformation
OPS Solutions
Detroit, Michigan, USA

6:15 pm - 6:45 pm (Wednesday, August 12)

Ryan Treece
Automotive Business Manager - IIOT Industry 4.0 Solutions
Banner Engineering
Berkley, Michigan

5:15 pm – 6:45 pm, WEDNESDAY High School STEM Competition Room 3

Session Chair: Judging Committee Chair – Prof. Don Reimer, Adjunct Professor, Lawrence Tech, Michigan

ID 476 "STEAMS" Approach of Preparing Freshest STEAMed Dumplings
Mason Chen 1, Yvanny Chang 2, Patrick Giuliano 3, and Charles Chen 3
1 Stanford University, Palo Alto, USA
2 Prospect High School
3 Morrill Learning Center, San Jose, USA

ID 669 Genes that affect Multiple Myeloma
Safir Rahman, Canton, MI, United States

ID 123 A Study on the Effects of Sleep on Children's Reaction Time
Alina Zhong, Stanford Online High School, Redwood City, CA 94063, USA

ID 563 Use of Ultrasonic Sensor to Guide the Visually-Impaired
Mahbuba Sumiya, Detroit, Michigan, United States

ID 109 Adolescent Fear Anxiety and Knowledge of COVID-19
Sophia Risin, Stanford Online High School, Redwood City, CA 94063, USA

ID 116 ARTEMIS Robot: Building Artificially Intelligent Robots with Child-like Curiosity
Artash Nath, 8th Grade Student, Toronto, Ontario, Canada

6:45 – 7:00 Break

August 12, 2020 (Wednesday) - Session: 7:00 pm – 10:00 pm

7:00 pm – 10:00 pm, WEDNESDAY Technical Track Room 1

Session Chair: Hamza Usman, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

ID 644 Machinability Enhancement of Difficult-to-Machine Materials Using Treated Cutting Tool Inserts: A Review
Durwesh Jhodkar and Kapil Gupta, Department of Mechanical Engineering and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

ID 424 Personality Identification Based on Handwritten Signature Using Convolutional Neural Networks
Muhammad Reza Aulia and Esmeralda C. Djamal, Department of Informatics, Jenderal Achmad Yani University, West Java, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 159 Treatment of Tannery Wastewater through Calcium Carbonate from Mollusca (Snail Shell)
Adhir Chandra Paul, Md. Readul Alam Shuvo and Md. Moshiur Rahman Tushar, Department of Leather Engineering, Khulna University of Engineering and Technology, Khulna-9203, Bangladesh

ID 211 Optimization of Insect Management Strategy Using Green Insecticide and Mating Disruption
Ihza Rizkia Fitri, Toni Bakhtiar, Farida Hanum and Ali Kusnanto, Department of Mathematics, IPB University, Bogor, 16680, Indonesia

ID 675 Empirical Modelling of Commercial Property Market Location Submarket using Hedonic Price Model in Malaysia
Hamza Usman and Mohd Lizam, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

ID 389 Soil and Water Assessment Tool (SWAT) for Modeling and Simulation in Water Resources Engineering
M. Nda, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia and Department of Civil Engineering, School of Engineering Technology, The Federal Polytechnic Bida, Niger State, Nigeria

M.S Adnan, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia, Parit Raja Johor, Malaysia
M. A. M Yusoff, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor Malaysia
G.S Jiya, Department of Civil Engineering, School of Engineering Technology, The Federal Polytechnic Bida, Niger State, Nigeria
I.Y Ebenehi, Department of Building Technology, School of Environmental Technology, Federal Polytechnic Bauchi, Bauchi State, Nigeria

ID 711 Bio-cement as Environmental Friendly Binders Based on Natural Waste
Roeswandono Wirjaatmadja, Faculty of Veterinary Medicine, University of Wijaya Kusuma Surabaya, Surabaya, 60225, Indonesia
Johan Paing and Andaryati, Faculty of Technic, University of Wijaya Kusuma Surabaya, Surabaya, 60225, Indonesia

ID 714 Modeling of Sustainable Freight Road Transportation Based on Generation Production of Freight Internal - Regional Commodities Movement
Juang Akbardin, Department of Civil Engineering, Universitas Pendidikan Indonesia, Bandung – Indonesia
Danang Parikesit and Agus Taufik Mulyono, Department of Civil Engineering, Universitas Gadjah Mada, Yogyakarta - Indonesia
Bambang Riyanto, Department of Civil Engineering, Universitas Diponegoro, Semarang - Indonesia
Sri Wiwoho Mudjanarko, Department of Civil Engineering, Universitas Narotama, Surabaya - Indonesia

7:00 pm – 10:00 pm, WEDNESDAY Industrial and Manufacturing Room 2

Session Chair: Mahaboob Sheriff K M, Hamad Bin Khalifa University, Education City, Qatar Foundation, Doha, Qatar

ID 496 Model of Volume of Transport Waste and Its Derivative Problems
Agung Prabowo, and Arum Mastikowati, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Jenderal Soedirman, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 417 Development and Performance Evaluation of an Optimized Screw type Domestic Oil Expeller
Naquib Mahmud Chowdhury and Faisal Mahmud Department of Production and Industrial Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh

ID 298 Implementation of Additive Manufacturing (AM) for Automotive Supply Chain Transformation in Post Covid-19 Scenario- A Barrier Analysis
Mahaboob Sheriff K M and Laoucine Kerbache, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Education City, Qatar Foundation, P.O. Box. 34110. Doha, Qatar

ID 515 Forecasting of Air Temperature in Cilacap Regency with Triple Exponential Smoothing (Holt-Winter) Method
Rizky Indriani, Agus Sugandha, Agustini Tripena, Niken Larasati and Aan Fatkhur Rokhman, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Jenderal Soedirman University, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 161 The Effect of Machine Layout on Engine Block Manufacturing System Profitability and Rate of Return
Khaleel Al ithawi and Kingman Yee, A. Leon Linton Department of Mechanical Engineering, Lawrence Technological University, Southfield, MI, USA
Sabah Abro, Engineering Technology Department, Lawrence Technological University, Southfield, MI 48075, USA
M. Ishtiaq Hussain, General Motors - Powertrain / Pontiac, 823 Joslyn Ave. Pontiac, Michigan, USA

ID 205 Applying Lean Manufacturing to Grocery Stores, Case Study
Turki Baagag, Khaled Alhindawi, Haithm Albtati, Faris Alhammad, Kusai Saadmohammad Mohammad, and Abdelhakim Abdelhadi, Engineering Management Department, Production and Manufacturing Program, Prince Sultan University, Riyadh, Saudi Arabia

ID 696 Strengthening the S&T Human Resource in the Philippines: An Analysis of the Balik Scientist Program of the Department of Science and Technology
Guada B. Ramos-Dimaya and Reihvelle A. Perez, National Academy of Science and Technology, Department of Science and Technology, Taguig City, Philippines
Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 725 Design Model Development of Madura Herbal Medicine Industry
Millatul Ulya, Khoirul Hidayat and M Fuad FM, Department of Agricultural Technology, Faculty of Agricultural, Trunojoyo University, Indonesia

ID 784 Improvement of Safety Accidents in a Manufacturing Plant: Six Sigma Approach
Sanu Kuriakose Thomas, Lawrence Technological University, Southfield, Michigan, USA

7:00 pm – 10:00 pm, WEDNESDAY High School STEM Competition Room 3

Session Chair: Judging Committee Chair – Prof. Don Reimer, Adjunct Professor, Lawrence Tech, Michigan

ID 125 Monitoring Run-off Toxicity Using Daphnia Magna
Saloni Patel, Stanford Online High School, Redwood City, CA 94063

ID 084 Melting Accidents Away
Arita Zaman, Huda School, Novi, MI, United States

ID 126 Analysis of Stock Market Reactions to COVID-19 Pandemic
Lily Sun, Stanford Online High School, San Ramon, CA, United States

ID 539 Solar Panel Size for a Single Family House
Nuzhat Ahsan, CAI, Canton, MI, United States

ID 142 The Differences in Spatial Memory between 2D and 3D Maze Environments
Siddhant Karmali, Stanford University Online High School, Irvine, CA, United States

ID 562 Variation in pain threshold and tolerance in high-risk school children
Mahbuba Sumiya, Detroit, Michigan, United States

ID 686 Renewable Energy - Wind Energy - Offshore vs. Onshore
Anas Ali, Crescent Academy International, Canton, MI, United States

ID 114 Demographic Factors that Impact Anxiety Levels
Amelia Zai, Stanford Online High School, Westwood, MA, United States

ID 691 COVID-19 Detection by Using Magiprobe
Yancheng Fang, Ann Arbor, MI, United States

ID 565 Testing Which Juice Loses the Least Amount of Vitamin C Over Time
Takiyah Ali, MIA, Ann Arbor, MI, United States

7:00 pm – 10:00 pm, WEDNESDAY COVID-19 Indonesia Room 4

Session Chair:

ID 456 Competency of Virtual Communication Monk Sangha Mahayana Indonesia in Providing Dharma Service to Buddhists in the Pandemic Covid-19
Sutrisno, Prahastiwi Utari, Ismi Dwi Astuti Nurhaeni, Mahendra Wijaya, Communication Science, Faculty of Social and Political Sciences, Sebelas Maret University Surakarta

ID 457 Analysis Theory of Reasoned Action Approaches on Intention Mudharabah Savings Product Customers in the Syariah Regional Development Banks in Yogyakarta
Mustafa, Faculty Economy, Pamulang University, Tangerang, Banten 15418, Indonesia

ID 458 Toraja Coffee and Tourism Destination: The Sustainable Development Tourism Based on Identity of Region
Muhammad Hasyim, Prasuri Kuswarini and Masdiana, Cultural Sciences Faculty, Hasanuddin University, Indonesia

ID 459 Knowledge and Attitudes of Nursing Students in the College of Health in The Face of Global Pandemic Covid-19: Community Empowerment in Preventing Epidemic Disease
Chairun Nasirin, College of Health Sciences Mataram (STIKES Mataram), Indonesia
Andries Lionardo, University of Sriwijaya, Palembang, Indonesia
Ivana, STISIPOL Candradimuka, Palembang, Indonesia

ID 460 Local Government Income Revenue: A Brief Study of the Policy Impact of Pandemic Covid-19 on Tourism Recovery
Andries Lionardo and Rudy Kurniawan, Faculty of Social and Political Studies, University of Sriwijaya, Palembang, Indonesia
Ivana, STISIPOL Candradimuka, Palembang, Indonesia
Chairun Nasirin, College of Health Sciences (STIKES), Mataram, Indonesia

ID 461 The Socio-Economic Impact on Policy National Food Security: Study of the Effects of Agricultural Product Distribution by Poor Farmers on the Pandemic Covid19
Ivana, STISIPOL Candradimuka, Palembang, Indonesia
Chairun Nasirin, College of Health Sciences (STIKES), Mataram, Indonesia
Andries Lionardo and Rudy Kurniawan, University of Sriwijaya, Palembang, Indonesia

ID 462 Study of Handling Thugs in the Territory of Indragiri Hilir Resort Police
Ali Azhar and Vivi Arfiani, Fakultas Hukum, Universitas Islam Indragiri, Indonesia

ID 463 Student Perception and Satisfaction of Internship Programs in Oversea Tourism Industry
Vienna Artina Sembiring, Nurti Rahayu and Emenina, Hotel Management Department Trisakti School of Tourism, Jl. IKPN Tanah Kusir, Bintaro, Jakarta Selatan,Indonesia

ID 464 Implementation of Discipline Policy for Civil Servants in Indragiri Hilir Regency Post Covid Pandemic 19
KMS. Novyar Satriawan Fikri and Ali Azhar, Fakultas Hukum, Universitas Islam Indragiri, Indonesia

ID 465 Medan City Government Regulation in Managing Traditional Markets and Modern Stores
Agung Suharyanto and Abdul Kadir, Public Administration Study Program, Faculty of Social and Political Sciences, Universitas Medan Area, Indonesia
Heri Kusmanto, Department of Political Science, Faculty of Social and Political Sciences, Universitas Sumatera Utara, Indonesia
Isnaini and Anggreni Atmei Lubis, Faculty of Law, Universitas Medan Area, Indonesia

ID 466 Sleep Duration, Internet Use Duration and Anxiety on University Student during Covid-19 Pandemic
Seto Mulyadi, Hendro Prabowo, Henny Regina Salve and Aprilia Maharani Ayuningsih, Faculty of Psychology, Gunadarma University, Depok, Indonesia

ID 467 Impact of the Covid-19 Pandemic on Fluctuation the Commodities Price of Plantation in Ambon City
Natelda R Timisela, Ester D Leatemia, Johanna M Luhukay, Raja M Sari, Esther Kembauw, Marfin Lawalata, Maisie T F Tuhumury, Raihana Kaplale, Septianti P Palembang and Noviar F Wenno, Department of Agricultural Economics Social, Faculty of Agriculture, Pattimura University, Jl. Ir. M. Putuhena, Kampus Poka, Ambon 97233

ID 468 The Effectiveness of Story-Writing Map and Guided Writing Procedure Strategies in the Learning of Short Story Writing
Amelia Datu Tonglo, Malimbong, Tana Toraja Regency, South Sulawesi Province, Indonesia
Yuliana Palullungan, Tana Toraja Regency, South Sulawesi Province, Indonesia
Syamsul Hadi, Sukamulia-Praida Hamlet of Bagik Payung Timur Village, East Lombok Regency-NTB, Indonesia

ID 469 ESP Textbook Development for Vocational School in Indonesia
Nurti Rahayu, Fikri Asih Wigati, Dwi Sloria Suharti, and Erwin Pohan, Universitas Pendidikan Indonesia, Bandung, Indonesia

ID 623 Indonesia Migrant Worker's Strategy Toward COVID-19: Study of Migrant's Knowledge and Host Countries' Policy
Ayu Kusumastuti, Ucca Arawindha and Indhar Wahyu Wira Harjo, Department of Sociology, Universitas Brawijaya, Malang, Indonesia

ID 624 Does COVID-19 Significantly Affect the Quality of Life? The Impact Analysis of COVID-19 on Work, Financial, Quality of Worship, Emotional and Social Aspects
Eko Sujadi, Dairabi Kamil, M. Ridha DS, Hengki Yandri and Dosi Juliawati, Faculty of Education and Teacher Training, State Islamic Institute of Kerinci, Sungai Penuh, 37112, Jambi, Indonesia
Muhammad Fadhli, English Education Department, University of Bengkulu, Bengkulu, 38371, Indonesia
Syaiful Indra, Islamic Guidance and Counseling Department, Ar Raniry State Islamic University
Banda Aceh, 23111, Indonesia

ID 625 Local Government Levy Optimization
M. Yusuf Usman, Witnu Urip Laksana and Aryo Dwi Wibowo, Ph.D Candidate, Universitas Negeri Makassar, Indonesia
Armin Anwar, STIE AMKOP, Makassar, Indonesia
Yusriadi Yusriadi, Sekolah Tinggi Ilmu Administrasi Puangrimaggalatung, Makassar, Indonesia
Abdul Sahid, STIA YAPPI, Makassar, Indonesia

ID 626 Economic and Social Impacts of Social Entrepreneurship Implementation Service to Community
Yusriadi Yusriadi and Awaluddin, Sekolah Tinggi Ilmu Administrasi Puangrimaggalatung, Makassar, Indonesia
Umi Farida, STIE AMKOP, Makassar, Indonesia
Saidna Zulfiqar bin Tahir, Universitas Iqra Buru, Indonesia
Misnawati, Sekolah Tinggi Ilmu Hukum Pengayoman, Indonesia

ID 627 Analysis of Factors Affecting Implementation of Entity Financial Accounting Standards without Public Accountability (SAK ETAP) in Middle Small Micro Businesses (UMKM) District in Indragiri District Region
Yusriwarti and Ira Gustina, Prodi Akutansi, Fakultas Ekonomi, Universitas Islam Indragiri, Indonesia

ID 628 Public Relations Officer Coca-Cola Amatil Indonesia Strategy in Running Activities of Media Relations against the News Party in the City of Medan
Nina Siti Salmaniah Siregar, Rehia K, Isabella Barus and Reka Kumara, Communication Science Study Program, Faculty of Social and Political Sciences, Universitas Medan Area, North Sumatera, Indonesia
Waridah Pulungan, Government Science Study Program, Faculty of Social and Political Sciences, Universitas Medan Area, North Sumatera, Indonesia
Wiflihani, Music Education Study Program, Faculty of Language and Art, Universitas Negeri Medan, North Sumatera, Indonesia

ID 629 The Influence of Learning Readiness on Learning Outcome of Technical Cadets with Online Learning during COVID-19 Pandemic
Lusiani, Department of Technique, Akademi Maritim Nusantara, Indonesia

ID 630 Identification Baby Boomer and Millenial Generation in Buying Dried Mango
Yosini Deliana and Eti Suminartika, Department of Agribusiness, Faculty of Agriculture, Universitas Padjadjaran, Jatinangor 45363, Indonesia
Mohammad Djali, Department of Food Industry Technogy, Universitas Padjadjaran, Jatinangor 45363, Indonesia

ID 757 Exploration and Economic Value Of Medicinal Plants As Traditional Herbal Ingredients in Bangselok, Madura, Indonesia
Sonny Kristianto, Jati Batoro, Sri Widyarti and Sutiman Bambang Sumitro, Biology Department, Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang, 65145, Indonesia

August 13, 2020 (Thursday) - Session: 8:00 – 9:15 am

8:00 – 9:15, THURSDAY Operations Management Room 1

Session Chair: Majid Touqan, University of Western Ontario, London, Canada

ID 511 Review of Data-Driven Robust Optimization
Diantiny Mariam Pribadi, Master Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Sukono, and Riaman, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Kalfin, Doctor Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 506 Risk Surplus Analysis in Credit Life Insurance Using Bayesian Method
Sukono, Khafsah Joebaedi, Nina Dora P., Endang Soeryana Hasbullah, and Dwi Susanti, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Hasriati, Mathematics Study Program, Faculty of Mathematics and Natural Sciences, Universitas Riau, Pekanbaru, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 513 Solution of Ordinary Fractional Differential Equation Using the Adomian-Elzaki Decomposition Method
Ira Sumiati, Master Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Kalfin, Doctor Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 588 The Impact of Adopting Project Management Standards on Project Success: Evidence from the Construction Industry of the United Arab Emirates
Majid Touqan, Department of Civil and Environmental Engineering, University of Western Ontario, London, Canada
Udechukwu Ojiako, College of Engineering, University of Sharjah, UAE, Hull University Business School, University of Hull, U.K. and UNIZIK Business School, Nnamdi Azikiwe University, Nigeria
Basma Hamdan, Mohammad Shamsuzzaman, and Hamdi Bashir,Sustainable Engineering Asset Management (SEAM) Research Group, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah 27272, United Arab Emirates

ID 478 Building a Prediction Model for Forecasting Adult Care Facility Quarterly Patient Demand
Sudhan Bhattarai 1, Yaneth Correa-Martinez 2, Ebisa Wollega 1 and Leonardo Bedoya-Valencia 1
1 Department of Engineering, Colorado State University – Pueblo, Pueblo, CO 81001, USA
2 Hasan School of Business, Colorado State University – Pueblo, Pueblo, CO 81001, USA

ID 436 Supplier selection for smart supply chain: An adaptive fuzzy-neuro approach
Kamar Zekhnini, Anass Cherrafi, Imane Bouhaddou and Youssef Benghabrit, LM2I Laboratory, ENSAM, Moulay Ismail University, Meknes, Morocco
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, UK

8:00 – 9:15, THURSDAY Technical Track Room 2

Session Chair: Maria Sabastin S., Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

ID 268 Evaluation of Six Sigma Applications in Patient Safety Context
Dalal M. Almansoori, Abdulla S. Mohammed, Nouf K. Alammari, and Alanoud A. Alabdouli, Department of Industrial and Systems Engineering, Khalifa University of Science and Technology, Abu Dhabi, 127788, UAE

ID 516 Double Linear Regression Method to Analyze Factors Affecting the Enemployment Level in West Java Province
Raden Ninditya Ghina Ashfahani, Agus Sugandha, Agustini Tripena, Agung Prabowo, and Aan Fatkhur Rokhman, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Jenderal Soedirman University, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 200 The Unify of Online User Behavior And Characteristics of Technology on Decision to Choose Mobile Network Operator (MNO)
Widya Granita, Doctoral Program, Mercu Buana University, Jakarta, Indonesia

ID 537 Decision Factor towards Product to Become Customer of Bank BNI Batam Branch in Indonesia
Dede Ansyari Guci, Puspa Liza Ghazali, Abdul Malek Bin A Tambi, Salman Lambak and Hazimi Mohd Foziah, Faculty of Business and Management, Universiti Sultan Zainal Abidin. Kuala Nerus, Terengganu. Malaysia
Dede Ansyari Guci and Amrin Mulia Nst, Faculty of Economic and Management, Universitas Medan Area. Medan Indonesia.
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 307 Exploring the Human Resource Practices in SMEs in India – A detailed study
Maria Sabastin S. and Harikrishnan R.V., Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

ID 240 The Role of Technopreneurship and Innovation System for Commercializing Battery Technology: A Comparative Analysis in Indonesia
Era Febriana Aqidawati, Master Program of Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia
Muhammad Hisjam and Wahyudi Sutopo, Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia

ID 520 Analysis of Evapotranspiration (ET) Calculation Algorithm at Pine Tree Forest in Idaho
Asep Denih, and Asep Saepulrohman, Dept. of Computer Science, Faculty of Mathematics and Natural Sciences, Pakuan University, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Masahiro Tasumi, Graduate School of Agriculture and Engineering, University of Miyazaki, Japan
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 523 Elliptic Curve Diffie-Hellman Cryptosystem for Public Exchange Process
Asep Saepulrohman, and Asep Denih, Dept. of Computer Science, Faculty of Mathematics and Natural Sciences, Pakuan University, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

8:00 – 9:15, THURSDAY Thesis and Dissertation Competition Room 3

Session Chair: Judging Committee Chair – Dr. Hayder Zghair, Adjunct Professor, Lawrence Tech, Michigan

MASTERS THESIS COMPETITION

ID 605 Computer Vision and Internet of Things Application to Enhance Pedestrian Safety
Ujjwal Khanna, Concordia Uniersity, Montreal, Quebec, Canada

ID 236 Knowledge assessment for radiation protection practices among dental professionals- A literature review
Fatma Eltarabishi, Hamad Rashid, and Walid A. Metwally, Industrial Engineering and Engineering Management Dept., University of Sharjah, UAE

ID 566 A Parallel Randomized Approximation Algorithm for Single Machine Scheduling With Applications to Flow Shop Scheduling
HOSSEIN BADRI, Department of Computer Science, Wayne State University, Detroit, MI 48202, USA

ID 106 A Review on Comparative Study to Detect Fraud Financial Statement using Data Mining and Machine Learning Algorithms
SWATI SRIVASTAVA, JAIPUR, IN, India

ID 687 Information systems in Industry 4.0: Mechanisms to support the shift from data to knowledge in Lean environments
Juliana Salvadorinho, Master's degree student in Industrial Engineering and Management, Department of Economics, Management, Industrial Engineering and Thourism, University of Aveiro, Aveiro, Portugal
Leonor Teixeira, Advisor, Institute of Electronics and Informatics Engineering of Aveiro (IEETA), Department of Economics, Management, Industrial Engineering and Thourism, University of Aveiro, Aveiro, Portugal

DOCTORAL DISSERTATION COMPETITION

ID 157 Investment-Based Site Selection Model for Interconnected Mini-Grid
Akintunde K. Akinlabi and Victor O. Oladokun, Department of Industrial and Production Engineering, University of Ibadan, Ibadan Nigeria

ID 567 Stochastic Optimization Methods for Resource Management in Edge Computing Systems
HOSSEIN BADRI, Department of Industrial & Systems Engineering, Wayne State University, Detroit, MI 48202, USA

Break 9:15 – 9:30 am

9:30 – 9:40 am, Thursday, Conference Co-Chair Remarks – **Dr. Muhammad Sohail Ahmed**, Professor, Engineering Management, School of Engineering, Eastern Michigan University, Ypsilanti, MI, USA

9:40 – 10:20 am: **Thursday Keynote I:**

Dr. Kannan Govindan
Professor of Operations & Supply Chain Management and
Head of the Center for Sustainable Supply Chain Engineering
University of Southern Denmark

10:20 – 11:00 Thursday Keynote II:

Dr. Maria Jesus Saenz
Executive Director, MIT SCM Blended Master's Program
Director, MIT Digital Supply Chain Transformation
MIT Center for Transportation and Logistics
Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA

11:00 – 11:15 Break

August 13, 2020 (Thursday) - Session: 11:15 am – 12:45 pm

11:15 am – 12:45 pm, THURSDAY Technical Track Room 1

Session Chair: Murad Andejany, University of Jeddah, Jeddah, Saudi Arabia

ID 034 CO2 Reduction Measures in the Electricity Supply Chain in Libya
Husen E. Bader and Saber Kh. Elmabrouk, School of Applied Sciences and Engineering, Libyan Academy for Graduate Studies, Janzour, Libya

ID 533 Tools and Techniques for Food Security and Sustainability Related Assessments: A focus on the Data and Food Waste Management System
Adeeb A. Kutty and Galal M. Abdalla, Mechanical and Industrial Engineering Department, College of Engineering, Qatar University, Doha, Qatar

ID 455 Sustainable public finances - impact of universal basic income on economy: case study of Latvia
Ilze Judrupa, and Andis Romanovs, Faculty of Engineering Economics and Management, Riga Technical University, Riga, Latvia

ID 727 Exploring the Applications of Lean Manufacturing Practices in Automobile Industry

Muhammad Ali Khan, Muhammad Saad Memon and Abdul Salam Soomro, Department of Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 014 Application of Low Cost and Sustainable Wastewater Treatment Technologies in Gold Processing: A Review of Bio char as an Option
M. M. Manyuchi and C. Mbohwa, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
E. Muzenda, Department of Chemical Engineering Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa and Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering and Technology, Botswana International University of Science and Technology, P. Bag 16, Palapye, Botswana
N. Sukdeo, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 632 Waste Recycling Awareness in Saudi Arabia and Barrier Analysis Using ISM
Murad Andejany, Industrial and System Engineering Department, College of Engineering, University of Jeddah, Jeddah, Saudi Arabia

11:15 am – 12:45 pm, THURSDAY Technical Track Room 2

Session Chair: Shelly Mona, Tshwane University of Technology, Pretoria, South Africa

ID 302 Impact of Flexibility on Operational Performance a Case from US Automotive Manufacturing Facilities
Raed El-Khalil and Joelle Nader, Information Technology and Operations Management, Lebanese American University, Beirut, Lebanon

ID 444 How Transformational Leadership Impact Project Success: Mediating Role of Person-Job Fit
Shazia Nauman and Samad Manan, Riphah School of Business and Management, Riphah International University, Lahore, Pakistan
Uneeb Ishtiaq, Department of Student Services and Careers, Riphah International University, Lahore, Pakistan
Muhammad Faheem Shahbaz, Riphah School of Business and Management, Riphah International University, Lahore, Pakistan

ID 202 Design of a Novel Micro-Tube Circulating Fluidized Bed MTCFB
Emad A.M. Abdelghani, Department of Chemical Engineering Technology, Yanbu Industrial College, Royal Commission Yanbu Colleges & Institutes, P.O. Box 30346, Yanbu Industrial City 41912, Kingdom of Saudi Arabia and Minia University, Faculty of Engineering, Chemical Eng. Dept., Minia, P.O. Box 61519, Egypt

ID 147 A System Dynamics Approach for Elimination of Defects in Automotive Manufacturing Industry
Shelly Mona, Industrial Engineering Department, Tshwane University of Technology, Pretoria, South Africa

ID 661 Distribution of Readiness Bands for Process Innovation Deployment in Manufacturing
Alireza Javahernia, Business School, University of Chichester, Chichester, PO19 6PE, UK
Funlade T. Sunmola, School of Engineering and Computer Science, University of Hertfordshire, Hatfield, AL10 9AB, UK

ID 637 A Review on Laser Beam Cutting
Cristina Anghel and Kapil Gupta, Mechanical and Industrial Engineering Technology Department, University of Johannesburg, Johannesburg, South Africa
Tien-Chien Jen, Mechanical Engineering Science Department, University of Johannesburg, Johannesburg, South Africa

11:15 am – 12:45 pm, THURSDAY Simulation Competition Room 3

Session Chair: Judging Committee Chair – Dr.Neil Murray, Manager, ZF

ID 646 Reliability Modelling and Quality Analysis of SQL Servers in Database Reporting
Praveen Kumar Guraja, and Pawan Bhandari, Department of Applied Engineering and Technology Management, Indiana State University, Terre Haute, IN 47809, USA
M. Affan Badar, Department of Applied Engineering and Technology Management, Indiana State University, Indiana State University, Terre Haute, IN 47809, USA

ID 393 A Simulation-Aided Lean Application to an Automated Production Line
Raid Al-Aomar, Professor of Industrial Engineering, School of Applied Technical Sciences, German Jordanian University, Amman-Jordan
Areen Alshwailat, Aseel Alfarraj and Tulip Odeh, Graduate students, Department of Industrial Engineering, German Jordanian University, Amman-Jordan

ID 258 Improvement of critical fault clearing time of power system by combining SMES with IPFC
Abdeldjabbar Mohamed Kouadria, and Mohamed Bey, Department of Electrical engineering, Faculty of application sciences, Laboratoire de génie energétique et génie informatique, Ibn Khaldoun University, Tiaret, Algeria
Mouloud Denaï, School of Engineering and Technology, University of Hertfordshire, Hatfield, UK

ID 274 Mathematical Model of Cholesterol Removal by Probiotics
Hedia Fgaier and Ali ElKamel, University of Waterloo, Waterloo, Ontario Canada
Abdalla Mansur, Queen's University, Kingston, Ontario, Canada

ID 785 Simulation Analysis to Compare and Improve Throughput for Automobile Insurance Claim Process
Devi Suruliraj, Lawrence Technological University, Southfield, Michigan, USA

12:45 – 1:00 pm Break

August 13, 2020 (Thursday) - Session: 1:00 – 2:00 pm

1:00 pm – 2:00 pm, THURSDAY **Industry 4.0** **Room 1**

Session Chair: Dr. Gajanand Gupta, VIT University, Chennai Campus, Tamil Nadu

1:00 – 1:20 pm

Pranav Srivastava
General Manager
Metso Outotec
Ahmedabad, Gujarat, India

Saurabh Sharma
Operational Excellence and LEAN Coach
Metso India Pvt. Ltd. Ahmedabad and
Vadodara Foundries, India

1:20 – 1:40 pm

Remus Pop
Director - The Connected Factory I4.0
Conway MacKenzie, Inc.
Livonia, Michigan

1:40 – 2:00 pm

Dr. Gajanand Gupta, Ph.D (BITS Pilani)
Assistant Professor (Sr.)
School of Mechanical Engineering (SMEC)
VIT University, Chennai Campus
Chennai, Tamil Nadu, India

2:00 – 2:15 pm Break

August 13, 2020 (Thursday) - Session: 2:15 – 3:45 pm

2:15 pm – 3:45 pm, THURSDAY **Sustainability** **Room 1**

Session Chair: Anass Cherrafi ENSAM-Meknes, Moulay Ismail University, Morocco

ID 011 Decontamination of Mercury and Arsenic in Water with Date Palm Residues
Aldo Edgar Rodriguez Maturino, Andrea Marcela Lopez de la Cruz, David Navarro Gonzalez, Ingrid Itzel Garcia Bustamante, Pedro Ernesto Chacon Garcia, Sergio Horcasitas Franco and Martha Sofia Chavez Soto, Industrial and Systems Engineering, Monterrey Institute of Technology and Higher Education, 64849, Mexico

ID 107 Strategies, Incentives and Determinants of Corporate Social Responsibility
HADDACH Abdelhay, Research team: Materials, Environment and Sustainable Development, Abdelmalek Essaâdi University, Faculty of Sciences and Techniques, Tangier, 90000, Morocco
BENFSSAHI Mouna, Laboratory of Mathematical Modeling and Control, Abdelmalek Essaâdi University, Faculty of Sciences and Techniques, Tangier, 90000, Morocco

ID 010 The Role Of The National Procurement Office In The Implementation Of Green Public Procurement In The South African Public Sector
Ernest Mutenda, Faculty of Engineering and the Built Environment, University of Johannesburg, PO BOX, 524, Auckland Park, 2006, South Africa

ID 325 The Kanban System's Environmental Impacts: A Comparative Study
Bárbara Romeira, DEGEIT, University of Aveiro, Campus Universitário de Santiago 3810-193, Aveiro, Portugal
Ana Moura, GOVCOPP / DEGEIT, University of Aveiro, Campus Universitário de Santiago 3810-193, Aveiro, Portugal
Margarita Robaina, GOVCOPP / DEGEIT, University of Aveiro, Campus Universitário de Santiago 3810-193, Aveiro, Portugal

ID 007 Lateral Inventory Share based Business Model for IoT Enabled Sustainable Food Supply Chain Network
Banu Yetkin Ekren, and Ecem Eroglu, Department of Industrial Engineering, Yasar University, Izmir, Turkey
Yigit Kazancoglu, Department of International Logistics Management, Yasar University, Izmir, Turkey
Vikas Kumar, Bristol Business School, University of the West of England, Bristol, UK

ID 606 A practical roadmap to implement Green Lean approach in Small and Medium Enterprises
Cherrafi Anass, ENSAM – Meknès, Moulay Ismail University, Meknes, Morocco

Siham Tissir, and Said El Fezazi, Laboratoire Process, Signaux, System, Industriel et Informatique, Ecole Supérieure de Technologie SAFI, Université Cadi Ayyad – Morocco

ID 013 Prosopis Glandulosa based rooting enhancer
Alejandro E. Calles Almeida, Alejandro Coronado Colin, Eduardo Lobeira Escamilla, César Alejandro González de la Garza, Jesús Eduardo Valderrama Campuzano and Roberto Asael de Lira Martínez, B.S. Industrial Engineering with minor in Systems Engineering, Instituto Tecnológico de Estudios Superiores de Monterrey, Monterrey, N.L., México

ID 534 An Empirical Assessment on the Transportation Sustainability Indicators and their Impact on Economic Productivity
Adeeb A. Kutty, Zehra Yetiskin, Muth M. Abraham, and Mahmoud A. Nooh, Engineering Management Program College of Engineering, Qatar University Doha, Qatar
Murat Kucukvar and Galal M. Abdella, Mechanical and Industrial Engineering Department College of Engineering, Qatar University, Doha, Qatar

2:15 pm – 3:45 pm, THURSDAY Industrial and Manufacturing Room 2

Session Chair: Galal M. Abdella, Mechanical and Industrial Engineering Department College of Engineering, Qatar University, Doha, Qatar

ID 673 Automotive System Modeling for Scrap Control: Case Study
Hayder Zghair a & b and Ahad Ali b
a Electro-Mechanical Engineering Technology, Pennsylvanian State University, Tulpehocken Road, Wyomissing, PA 19610, USA
b A. Leon Linton Department of Mechanical, Industrial, and Robotics Engineering, Lawrence Tech University, Southfield, MI 48075, USA

ID 586 Performance levels and degradations with dependability
Kenza Berrada, Laboratoire des techniques industrielles, faculté des sciences et techniques de Fès, Université Sidi Mohamed Ben Abdellah, Fès.
Brahim Herrou, Ecole Supérieure de Technologie BP. 2427 Route Imouzzer, Fès Morocco

ID 449 IDeS (Industrial Design Structure) and Stylistic Design Engineering (SDE) applied to the mobility of the future
Giampiero Donnici, Leonardo Frizziero, Alfredo Liverani, Lorenzo Cacaci, Nicole Costantini, and Giorgia Pedrielli, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 071 A Deterministic, Multi-period, Multi-item Inventory Model with Supplier Selection and Emission Control
Nusrat T. Chowdhury, School of Technology, Art, and Design, Bemidji State University, Bemidji, MN 56601, USA

ID 560 Developing Project, Operations and Programme Management Methodologies for Sustainable Industrialisation in South Africa
Prof. Pule Kholopane and Thakaramahlaha Lehohla, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 152 The Bilateral Effects Between Industry 4.0 and Lean: Proposal of a Framework Based on Literature Review
Juliana Salvadorinho, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, Aveiro Portugal
Leonor Teixeira, Institute of Electronics and Informatics Engineering of Aveiro (IEETA), Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, 3010-193, Aveiro Portugal

ID 631 Lean Management and Industry 4.0 Impact in COVID19 Pandemic Era
Siham Tissir, Said El Fezazi Laboratoire Process, Signaux, System, Industriel et Informatique, Ecole Supérieure de Technologie SAFI, Université Cadi Ayyad – Morocco
Anass Cherrafi ENSAM-Meknes, Moulay Ismail University, Morocco

2:15 pm – 3:45 pm, THURSDAY Technical Track-Industry 4.0 Room 3

Session Chair: Antonio Grilo, UNIDEMI, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Lisbon, Portugal

ID 354 Specialized Business Incubators as a strategy for Small And Medium-sized Enterprises in the Industry 4.0 era – A systemic approach
Guadalupe Bosques-Brugada, Luis A. Mendoza-del Villar and Eduardo Oliva-López, ESIME Zacatenco, Instituto Politécnico Nacional, Mexico City, Mexico
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, UK
Jiri Tupa, Department of Technologies and Measurement, University of West Bohemia in Pilsen, Univerzitni 8, Czech Republic

ID 158 Investigating the Skills and Knowledge Requirements for IOT implementation in Construction
Upeksha Hansini Madanayake, Rafiu Dimeji Seidu and Bert Ediale Young, School of the Built Environment and Architecture, London South Bank University, 103 Borough Road, London, SE1 0AA, UK

ID 253 Profile-based Matching of Clients and Agents in Remote Customer Support
Negin Mehrbod, Ahmad Mehrbod and António Grilo, UNIDEMI, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa Caparica, Portugal

ID 189 The Relationship between Lean and Industry 4.0: Literature Review
Vahid Taghavi and Yvan Beauregard, Mechanical Engineering Department, École de technologie supérieure, Montréal, Canada

ID 564 System Analysis: A Literature Review
Anouar Hallioui, Laboratoire des Techniques Industrielles, Centre d'Etudes Doctorales en Sciences et Techniques de l'Ingénieur - Faculté des Sciences et Techniques de Fès, Université SIDI MOHAMED BEN ABDELLAH, Fès, Morocco
Brahim Herrou, Ecole Supérieure de Technologie, BP. 2427 Route Imouzzer, Fès, Morocco

ID 064 A Blockchain Based Architecture for Fulfilling the Needs of an E-Procurement Platform
Tahereh Nodehi, Aneesh Zutshi and Antonio Grilo, UNIDEMI, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Lisbon, Portugal

Break 3:45 – 4:00 pm

August 13, 2020 (Thursday) - Session: 4:00 – 5:00 pm

4:00 pm – 5:00 pm, THURSDAY **Global Business Management Education** **Room 1**

Session Chair: Dr. Anjali Awasthi, Concordia University, Montreal, Canada

4:00 pm - 4:20 pm (Thursday)

Dr. Mahdi FATHI
Assistant Professor, Department of Information Technology and Decision Sciences (ITDS)
G. Brint Ryan College of Business
University of North Texas, Denton, Texas, USA

4:20 pm - 4:40 pm (Thursday)

Dr. Tagwa Ahmed Musa Mohamed
Executive Committee Member - Global Engineering Dean's Council (GEDC)
Associate Professor and Former Dean - College of Petroleum Engineering and Technology
Sudan University of Science and Technology, Khartoum- Sudan

ID 778: Sudanese Women in Extractive Industries: Engineering Education Point of View

4:40 pm - 5:00 pm (Thursday)

Dr. Anjali Awasthi
Associate Professor
Concordia Institute for Information Systems Engineering
Faculty of Engineering and Computer Science
Concordia University, Montreal, Canada

Break 5:00 – 5:15 pm

August 13, 2020 (Thursday) - Session: 5:15 pm – 6:45 pm

"Operational Excellence and Supply Chain in the Industry 4.0 Era"

Session Chair: Dr. Mehran Doulat, Xiamen University, Malaysia

5:15 pm – 5:45 pm (Thursday, August 13)

Ts. Dr. Mehran Doulat
Director of Centre for Operational Excellence Research (COER)
Associate Professor of Operations and Quality Management
MBA Review Committee/Research Coordinator
Xiamen University, Malaysia

5:45 pm – 6:15 pm (Thursday, August 13)

Dr. Guilherme Francisco Frederico
Professor of Operations and Supply Chain Management
School of Management
Federal University of Paraná
Curitiba, Brazil

6:45 – 7:00 Break

August 13, 2020 (Thursday) - Session: 7:00 pm – 9:00 pm

7:00 pm – 10:00 pm, THURSDAY **Global Engineering Education** **Room 1**

Session Chair: Dr. Gulnara (Gulya) Abitova, Professor at Almaty Management University (AlmaU), Astana, Kazakhstan

7:00 pm – 7:20 pm (Thursday, August 13)

Dr. Fatin Aliah Phang
Professor and Fellow at the Centre for Engineering Education (CEE)
Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia

7:20 pm – 7:40 pm (Thursday, August 13)

Dr. Matthew W. Ohland
Professor and Associate Head of Engineering Education
Purdue University
West Lafayette, Indiana, USA

ID 772 Monitoring and Improving Student Team Experiences

7:40 pm – 8:00 pm (Thursday, August 13)

Dr. Rajeev Agrawal
Associate Professor, Mechanical Engineering Department
Associate Dean (Research)
Malaviya National Institute of Technology Jaipur
Rajasthan 302017, India

8:00 pm – 8:20 pm (Thursday, August 13)

Jihong Yan, Ph.D.
Professor in Industrial Engineering
Deputy Dean of School of Mechatronics Engineering
Head of intelligent Manufacturing Scientific Research Team
Harbin Institute of Technology, Harbin, China

Pathways to Success: Innovation and Entrepreneurship Education at HIT

8:20 pm – 8:40 pm (Thursday, August 13)

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

8:40 pm – 9:00 pm (Thursday, August 13)

Dr. Gulnara (Gulya) Abitova
Business-Trainer, Lecturer, and Science Advisor
Professor at Almaty Management University (AlmaU)
Astana, Kazakhstan

9:00 pm – 9:20 pm (Thursday, August 13)

Mohammad Anwar Rahman, Ph.D.
Associate Professor
Program Coordinator: Supply Chian & Logistics Management (MS)
School of Engineering & Technology
Central Connecticut State University
1615 Stanley St., New Britain, CT 06053

9:20 pm – 9:40 pm (Thursday, August 13)

Anjum Ali, Ph.D.
(Retd.) Professor of Electrical Engineering, FAST-NU, Lahore, Pakistan
Ex. Associate Professor of Computer Engineering, LUMS, Lahore, Pakistan
Ex. Professor of Computer Science and Engineering

9:40 pm – 10:00 pm (Thursday, August 13)

Dr. Shamsul Huda
Lecturer in Computer Science
Cyber Security Research and Innovation Centre (CSRI)
School of Information Technology, Faculty of Science Engineering and Built Environment
Deakin University, Burwood, Victoria, Australia

Cyber security for industrial control systems and networks: vulnerabilities, targeted attack and challenges

7:00 pm – 10:00 pm, THURSDAY Technical Track – Industry 4.0 Room 2

Session Chair: Tanmoy Das, Department of Industrial Engineering, Dalhousie University, Canada

ID 394 A Proposed Model for Food Manufacturing in SMEs: Facing Industry 5.0
Wara Widyarini Endah Saptaningtyas, Agency of Industrial Research and Standardization Samarinda, Ministry of Industry Republic of Indonesia, Samarinda, Indonesia
Deasy Kartika Rahayu Kuncoro, Industrial Engineering, Faculty of Engineering, Mulawarman University, Samarinda, Indonesia

ID 401 Development of Automatic Painful Detection based on the Face Recognition System
Steven Herdianto, William Jonathan, Winda Astuti and Muhammad Nurul Puji, Automotive and Robotics Program, Computer Engineering Department, BINUS ASO School of Engineering, Bina Nusantara University, Jakarta, Indonesia 11480
Yuli Astuti Andriatin, Nursery Departement, Cilacap Regional General Hospital, Gatot Subroto No.28, Cilacap, Central Jawa, Indonesia 53223

ID 423 Predictive Analytics of Sources of Electricity in Bangladesh: A Step Toward Sustainable Development Goals Concerning Industry 4.0
Tanmoy Das, Department of Industrial Engineering, Dalhousie University, 5269 Morris Street, Halifax NS B3H 4R2 Canada
M. Azizur Rahman , Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology (AUST), 141-142 Love road, Tejgaon I/A, Dhaka 1208, Bangladesh
Ahmed Fardin, Centre for Sustainable Development, University of Cambridge, Trumpington Street, Cambridge, United Kingdom CB2 1PZ

ID 576 The Utility of Gadget (Smartphone) and Learning Facility on Economics Learning Achievement in East Java in Indonesia
Priyo Utomo, Lecturer of Management, Institute of Economic and Science Pemuda Surabaya, Indonesia
Syamsul Arifin, Lecturer of Economic Institute of Economic and Science Pemuda Surabaya, Indonesia

ID 484 A 3D BIM Integration in Risk Management for Construction Projects in Malaysia
Nur Kamaliah Mustaffa, Che Maznah Mat Isa, and Verona Ramas Anak Joseph, Faculty of Civil Engineering, Universiti Teknologi MARA, 40450, Shah Alam, Selangor, MALAYSIA
Mohd Feisal Hafiz Abdul Aziz, Public Service Department, Federal Government Administrative Centre, Complex C, 61250, Putrajaya, MALAYSIA

ID 399 Assessment of Big Data Analytics Maturity Models: An Overview
R. M. Nda, Cluster of Department of Technology Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia and Midland School of Business and Finance, Abuja, Nigeria
R. Tasmin, Department of Technology Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia

ID 160 Optimization Analysis in a New Engine Block Manufacturing System Using Simulation Approach
Khaleel Al ithawi and Kingman Yee, A. Leon Linton Department of Mechanical Engineering, Lawrence Technological University, Southfield, MI, USA
Sabah Abro, Engineering Technology Department, Lawrence Technological University, Southfield, MI 48075, USA
M. Ishtiaq Hussain, General Motors Powertrain Pontiac, 823 Joslyn Ave Pontiac, Michigan

ID 750 Describe Changes Management System for Public Organization in Indonesia (Case Study of Bureaucracy Innovation at Margono Hospital Purwokerto)
Trimurti Ningtyas, Endang Larasati, Hardi Warsono, and Hartuti Purnaweni, Department of Public Administration, Universitas Diponegoro, Semarang

ID 751 The Influence of Tourism Imagery on Tourist Visits in Lake Toba Tourism Object North Sumatera
Hengki Mangiring Parulian Simarmata and Roy Sahputra Saragih, Politeknik Bisnis Indonesia

7:00 pm – 10:00 pm, THURSDAY Entrepreneurship and Innovation Room 3

Session Chair: Maruf Akbar, Universitas Negeri Jakarta, Indonsia

ID 043 Feasibility Study on Designing Innovative Raincoat Production Company – Market and Marketing Aspect (1)
Zakka Ugih Rizqi and Adinda Khairunisa, Department of Industrial Engineering, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 044 Feasibility Study on Designing Innovative Raincoat Production Company – Technical, Legal, and Environmental Aspect (2)
Zakka Ugih Rizqi and Adinda Khairunisa, Department of Industrial Engineering, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 575 Innermost Hone Model To Enhance The Competency Of Teachers In Evolving Teaching Materials
Masrul 1, Moh.Fauziddin 2, Mufarizuddin 3, Lusi Marleni 4, and Astuti 5
1,4 Department of English Educaion Program, Universitas Pahlawan Tuanku Tambusai ,Jl. Tuanku Tambusai No 23 Bangkinang, Indonesia
2 Department Early Chillhood Education Program, Universitas Pahlawan Tuanku Tambusai, Jl. Tuanku Tambusai No 23 Bangkinang, Indonesia
3 Department of Elementary Teacher Education Program, Universitas Pahlawan Tuanku Tambusai, Bangkinang, Indonesia
5 Department of Mathematics of Education Program, Universitas Pahlawan Tuanku Tambusai, Jl. Tuanku Tambusai No 23 Bangkinang, Indonesia

ID 120 Multicultural Counseling Based on the Book of Lontar Yusuf in Indonesia
Arif Ainur Rofiq, Pudji Rahmawati and Nur Hidayah, Guidance and Islamic Counseling, State Islamic University (UIN) of Sunan Ampel, Surabaya, East Java, Indonesia 3Universitas Negeri Malang, East Java, Indonesia

ID 121 Relationship between Lecturer Competencies and Students' Learning Achievement in Social Sciences Education Courses
Hermawan,Wawan and Riswanto, Ari, Faculty of Social Sciences Education, Sekolah Tinggi Keguruan dan Ilmu Pendidikan, PGRI Sukabumi, West Java Indonesia

ID 122 The Influence Factors of the Development of Performance Measurement Systems in Indonesia Central Government
W Syachbrani, SekolahTinggi Ilmu Ekonomi Amkop Makassar, South East, Indonesia
R Akbar, Gadjah Mada, University, Yogyakarta, Indonesia

ID 113 The power of customer value on customer satisfaction at non-formal education industry
Akhmad Nasir 1, Damarsari Ratnasahara Elisabeth 2 and Joko Suyono 3, 4.
1 Sekolah Tinggi Ilmu Ekonomi Gempol, Management Department, Gempol Pasuruan, Indonesia 67155.
2 Sekolah Tinggi Ilmu Ekonomi Mahardhika, Management Department, Surabaya, Indonesia.
3 Universitas Airlangga, Management Department, Faculty of Economics and Business, Surabaya, Indonesia 60115.
4 Narotama University, Department of Management and Business, Surabaya, Indonesia 60117

ID 577 Work Culture Change in Ministry of Religius Affairs (MoRA) Indonesia
Salma Munawwaroh, Endang Larasati, Sri Suwitri, and Hardi Warsono, Doctor of Public Administration, FISIP UNDIP, Semarang, Central Java, Indonesia

ID 722 The Effects of Organization Learning and Self Efficacy Towards The Work Effectiveness of The Lecturers at Politeknik Kesehatan Kemenkes RI Tanjungkarang
Ferizal Masra, Universitas Negeri Jakarta, Indonesia / Politeknik Kesehatan Kemenkes RI Tanjungkarang, Lampung, Indonesia
Maruf Akbar and Nurhartatti Fuad, Universitas Negeri Jakarta, Indonsia

7:00 pm – 10:00 pm, THURSDAY Entrepreneurship and Innovation Room 4

Session Chair: Muhammad Ikhsan Setiawan, Narotama University, Surabaya, East Java, Indonesia

ID 736 Application of Talent Management through Employee Competence in State-Owned Enterprises
Sry Rosita, Sumarni, and Andang Fazri, Fakultas Ekonomi dan Bisnis, Universitas Jambi, Jambi

ID 737 Synchronization Testing of Hybrid Generators (Solar and Wind) Based on DC - AC Inverters
Rimbawati, Electrical Engineering, Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia
Mohammad Yusri, Social Political Science, Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia

ID 738 Earning Management and Cash Holding as Window Dressing Moderation for Past Financial Performance with F-Score Analysis (Studies non-banking sector companies in Indonesia Capital Market)
Niken Savitri Primasari and Endah Tri Wahyuningtyas, University of Nahdlatul Ulama Surabaya

ID 739 Perspective on violence against women values in autobiography Le Voile De La Peur as education process for adolescents in University
Subur Ismail 1, 2, Emzir 1, and Yumna Rasyid 1
1 Language Education, Postgraduated Program Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta Timur 13220, Indonesia
2 France Language Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta Timur 13220, Indonesia

ID 740 Opportunities, Constraints and Challenges in Covid-19 Treatment in South Kalimantan
Nana Noviana, Regional Research and Development Agency, South Kalimantan Province, Indonesia
Hary Priyanto, 17 August 1945 University, Banyuwangi, East Java Province, Indonesia

ID 741 Classen Typology and Elasticity against Economic Growth (Case Study: Aceh)
Irham Iskandar, Bidang penelitian dan pengembangan, Aceh Province Regional Planning and Development Agency, Banda Aceh, Indonesian
Murtala, Economics and business Department, Malikussaleh University, Lhokseumawe, Indonesian
Sugiarto, Civil Engineering Department, Universitas Syiah Kuala, Banda Aceh, Indonesian

ID 742 Commitment, Satisfaction and Motivation in Improving Organizational Citizenship Behavior and Its Impact on Lecturer Performance in Higher Education
Sry Rosita, Musnaini, and Dian Mala Fithriani, Fakultas Ekonomi dan Bisnis, Universitas Jambi, Jambi

ID 743 Learning Management: Identifying Learning Styles of Language Learners In Madrasah
Fathor Rozi, Muhammad Mushfi El Iq Bali, Sulton Firdaus, Muallim Wijaya, Rahmatul Aziz Al Mursyidi, Moh Wasil Haqiki, and Zainal Abidin, Nurul Jadid University, Probolinggo, East Java, Indonesia

ID 744 Multicultural Education in a Religious Life: Developing Harmony among Religions In Southeast Asia
Zamroni and Mukhamad Ilyasin, IAIN Samarinda, Borneo, Indonesia
Hasan Baharun and Moch. Tohet, Nurul Jadid University, Probolinggo, East Java, Indonesia

ID 745 Anti Radicalism Education; Amplification of Islamic Thought and Revitalization of the Higher Education In Indonesia
Abd Hamid Wahid, Akmal Mundiri, Najiburrahman, Hasan Baharun, and Chusnul Muali, Nurul Jadid University, Probolinggo, East Java, Indonesia

ID 747 Tubular Reactor Performance for Hydrolysis Reaction of Propylene Oxide
Tri Hadi Jatmiko, Research Division for Natural Product Technology, Indonesian Institute of Sciences, Yogyakarta, Indonesia

ID 748 Cultural Relevance of Pesantren Musthafawiyah Purba Baru against the Regeneration of Clerics in Mandailing Natal Regency
Muhammad Roihan Daulay, Lecturer at IAIN Padangsidimpuan Tarbiyah Faculty and Lecturer at Padangsidimpuan State Islamic Institute, Faculty of Tarbiyah and Teacher Training, Islamic Religious Education Study Program

ID 749 Development Blended Learning Based On Edmodo to Improve Students' Higher Order Thinking Skills
Irmayanti, Tadris Matematika, Institut Agama Islam Muhammadiyah Sinjai, Jl. Sultan Hasanuddin No.20 Sinjai
Sri Wahyuni, Institut Agama Islam Negeri Bone, Jl. Hos Cokroaminoto No.1 Bone

August 14, 2020 (Friday) - Session: 8:00 – 9:15 am

8:00 – 9:15, FRIDAY Operations Management Room 1

Session Chair: N. K Oladejo, Department, Mathematics Programme, Landmark University, Nigeria

ID 487 Model for Determining Natural Disaster Insurance Premiums in Indonesia Using the Black Scholes Method
Kalfin, Doctor Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Sukono, and Sudradjat Supian, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Kuala Terengganu, Malaysia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 504 Modeling of Premium Reserves Using the Fackler Method in Equity-Linked Life Insurance
Riaman, Sudradjat Supian and Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Parit Raja, Johor, Malaysia

ID 514 The Food Habits, Niche Breadth and Niche Overlap of Fish Community in Jatigede Reservoir, West Java
Titin Herawati, Rizki N. Saputra, Walim Lili, Ibnu B. B. Suryadi, and Nia Kurniawati, Faculty of Fisheries and Marine Science, Universitas Padjadjaran
Dimas A. Hedianto, BRPSDI Purwakarta, Ministry of Marine Affairs and Fisheries
Heti Herawati, Faculty of Fisheries and Marine Science, Universitas Padjadjaran
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 587 Modeling and Analyzing of Delay Factors in Public R&D Projects: An Integrated ISM-Fuzzy MICMAC Approach
Omar Alnemer, Hamdi Bashir, Udechukwu Ojiako, and Salah Haridy, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah 27272, United Arab Emirates.

ID 362 Analysis of Factors Impacting The Length of Stay in Emergency Departments
Mohammed Ba-Aoum 1, 2, and Mohammed Alrezq 1
1 Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, VA 24060, USA
2 Department of Industrial and Systems Engineering, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 079 Optimizing Portfolio Selection of a Firm using Linear Programming
N. K Oladejo, Department, Mathematics Programme, Landmark University, Nigeria

8:00 – 9:15 am, FRIDAY Technical Track Room 2

Session Chair: Raed El-Khalil, Lebanese American University, Beirut, Lebanon

ID 145 The Effect Of Financial Distress, Management Replacement, Audit Opinion, Institutional Ownership, And Company Size Of Auditor Switching (Study of Manufacturing Companies Listed on Indonesia Stock Exchange 2011-2018)
Azizah Zakia Lestari, Faculty of Economics and Business, Universitas Airlangga, Surabaya, Indonesia
Yustrida Bernawati, Faculty of Economics and Business, Universitas Airlangga, Surabaya, Indonesia
Rony Wardhana, Faculty Economy and Business, Universitas Narotama. Surabaya, Indonesia and Student of Doctoral Accounting in Universitas Airlangga, Surabaya Indonesia

ID 440 Identification of Vehicle Plate Number Using Convolutional Neural Networks
Indra Jaya Rukmana, Esmeralda C. Djamal and Fatan Kasyidi, Department of Informatics, Jenderal Achmad Yani University, West Java, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 169 An Accelerated Shamanskii-like Scheme for Some Conservative problems
Mustafa Mamat and Ibrahim Mohammed Sulaiman, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Terengganu, Malaysia

ID 638 Comparative Thermal Stability and Heat Transfer Capability for Various Materials for Belt Conveyor Disc Brake
Daniel Chelopo, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

ID 643 Effect of CuO nanoparticles based vegetable oil on the machining performance of WC tool insert while turning EN 8 steel
Durwesh Jhodkar and Kapil Gupta, Department of Mechanical Engineering and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

ID 316 Assessing Agility Implementation in Manufacturing
Elma Nassar, Electrical and Computer Engineering Department, Lebanese American University, Beirut, Lebanon
Raed El-Khalil, Information Technology and Operations Management Department, Lebanese American University, Beirut, Lebanon

ID 753 Descriptive Analysis of Lean Manufacturing Practices in Textile Industry
Muhammad Ali Khan, Department of Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan
Awaiz Khatri, Department of Textile Engineering, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan
Hussain Bux Marri, Department of Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

8:00 – 9:15 am, FRIDAY Undergraduate Research Competition Room 3

Session Chair: Judging Committee Chair – Dr. Ahsanul Karim, Ford Motor Company, Dearborn, MI, USA

ID 472 Description of the CAD-AM Process for 3D Bone Printing: The Case Study of a Flat Foot

Francesca Napolitano, Leonardo Frizziero, Gian Maria Santi, Giampiero Donnici, Alfredo Liverani, Paola Papaleo and Valentina Giuseppetti, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 378 Pandemic Response Based Healthcare Services System Architecture among Urbanized Communities In The Philippines
Jesraah Nadine C. Sedavia, Lance Paolo D. Sacdalan Christian James G. Madrid, Zaira Angelica L. Baliday, Jerick P. Timbang, Arriane A. Palisoc, and Yoshiki B. Kurata, Department of Industrial Engineering, Technological Institute of the Philippines, Quezon City, Philippines

ID 471 Description of the CAD-AM Process for 3D Bone Printing: the Case Study of a Femur
Leonardo Frizziero, Giampiero Donnici, Alfredo Liverani, Gianmaria Santi, Marco Neri, Paola Papaleo, and Francesca Napolitano, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

ID 311 Quay Crane Scheduling Based Problem: A Process Optimization for an International Container Terminal in the Philippines
Vincent M. Salosagcol, Princess Faith Z. Fernandez, Mark Angelo D. Martinez, Martin Rafael D.S. Valencia, Giovanni O. Ables, and Yoshiki B. Kurata, Industrial Engineering Department, Technological Institute of the Philippines, Quezon City, Philippines

FYP / SENIOR DESIGN PROJECT COMPETITION
ID 688 Cape Fear Valley Medication Return Process Improvement
Alex Kachler, Thembela Shabangu, and Girish Upreti, Methodist University, Fayetteville, NC, United States

ID 805 Intelligent Smart Real Time Vision (ISRTV) as an Embedded System for Advanced Applications: A Student Educational Platform on Vehicle Collision Avoidance and Driver Safety
George Pappas, Electrical and Computer Engineering Department, Lawrence Technological University, Southfield, MI 48075, USA
Hamid Vejdani, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Tech University, Southfield, MI, USA
Ali Fallahi, Civil and Architectural Engineering Department, Lawrence Technological University, Southfield, MI 48075, USA

Break 9:15 – 9:30 am

9:30 – 9:40 am, Friday, Conference Industry Co-Chair Remarks – **Steven Sibrel**, Senior Supplier Quality Manager, Harman International, Novi, Michigan, USA

9:40 – 10:20 am: **Friday Keynote I:**

Chris Stevens
VP of Industry Verticals
Siemens Digital Industries Software
Troy, Michigan

John Burns
Director of Sales, Automotive and Transportation
Siemens Digital Industries Software
Troy, Michigan

10:20 – 11:00 Friday Keynote II:

Noman Husain
Founder
TRANSFORMability
Detroit, Michigan, USA

11:00 – 11:15 am Break

August 14, 2020 (Friday) - Session: 11:15 am – 12:45 pm

11:15 am – 12:45 pm, FRIDAY **Technical Track** **Room 1**

Session Chair: Raed El-Khalil, Lebanese American University, Beirut, Lebanon

ID 088 The Impact of Supply Chain Quality Management Practices, Supply Chain Quality Management Capabilities and Knowledge Transfer on Firm Performance: A Proposed Framework
Ahmed A. Zaid, Department of Industrial Management, Palestine Technical University – Kadoorie, Tulkarm, West Bank, Palestine
Javeria Baig, Production and Operations Management Department, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

ID 199 Customer Promise Equipment Management System in Oman Tel Company: A Review
Mahmood Said Rashid Al Rahbi and Asad Ullah, Department of Management studies, Middle East College, Muscat, Oman

ID 303 A Study of the Relation between Flexibility Dimensions and Performance Metrics: Literature Review
Raed El-Khalil and Mohamad Ali Mezher, Information Technology and Operations Management, Lebanese American University, Beirut, Lebanon

ID 272 Improving Patient Safety through Systems Approaches
Alanoud A. Alabdouli, Dalal M. Almansoori, Abdulla S. Mohammed, and Nouf K. Alammari, Department of Industrial and Systems Engineering, Khalifa University of Science and Technology, Abu Dhabi, 127788, UAE

ID 251 On the Application of Hazard and Operability Method in Patient Safety Context: Opportunities and Challenges
Abdulla S. Mohammed, Nouf K. Alammari, Alanoud A. Alabdouli, and Dalal M. Almansoori, Department of Industrial and Systems Engineering, Khalifa University of Science and Technology, Abu Dhabi, 127788, UAE

ID 063 A Systematic Business Process Management Application of an Imports Process on a Commercial Company
Odette Chams-Anturi, Department of Economic Science, Universidad de la Costa, Barranquilla, Colombia
Juan P. Escorcia-Caballero, Department of Entrepreneurship and Management, Universidad del Norte, Barranquilla, Colombia
Anamaria P. Gomez, Department of Educational Leadership, Research and Technology, Western Michigan University, Kalamazoo, MI 49008, USA
Milton Soto-Ferrari, Operations and Supply Chain Management Department, Indiana State University, Terre Haute IN 47807, USA

11:15 am – 12:45 pm, FRIDAY Industrial and Manufacturing Engineering Room 2

Session Chair: Leonor Teixeira, University of Aveiro, Portugal

ID 640 Mechanical Performance in Fused Deposition Modeling Manufactured Parts-An Additive Manufacturing Review
Andre Espach, Department of Mechanical Engineering Science, University of Johannesburg, Johannesburg, Republic of South Africa
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, Republic of South Africa

ID 005 On Power Consumption while Machining Inconel 600 using Textured Cutting Tools of Tungsten Carbide
Adam Khan M, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, Republic of South Africa

ID 255 Development of a Business Case Model for Process Analytical Technology Implementation in the Pharmaceutical Industry
María A. Fontalvo-Lascano and Mayra I. Méndez-Piñero, Industrial Engineering Department, University of Puerto Rico at Mayagüez, Mayagüez, PR 00680, USA
Rodolfo J. Romañach, Chemistry Department, University of Puerto Rico at Mayagüez, Mayagüez, PR 00680, USA

ID 192 Short-Term TPM Implementation in SME: A Case Study
Abdullatif Ben Hassan and Walid Abdul-Kader, Mechanical, Automotive & Materials Engineering, University of Windsor, Windsor, Ontario, Canada

ID 660 Blockchain Characteristics for Sustainable Supply Chain Visibility
Funlade T. Sunmola and Uje D. Apeji, School of Engineering and Computer Science, University of Hertfordshire, Hatfield, Hertfordshire, UK

ID 276 BPMN and Lean Contributions for the ISO9001 Implementation: A Case Study within the Plastics Industry
Sara Castro, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, Aveiro Portugal
Leonor Teixeira, Institute of Electronics and Informatics Engineering of Aveiro (IEETA), Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, 3010-193, Aveiro Portugal

ID 770 Impacts of optimization in apparel supply chain focusing on ANN and Genetic Algorithm
Shibbir Ahmad and Md. Kamruzzaman, Mechanical Engineering Department, Dhaka University of Engineering Technology, Gazipur, Bangladesh.
M. Iqbal, Industrial and Production Engineering, Shah Jalal University of Science & Technology, Sylhet, Bangladesh

11:15 am – 12:45 pm, FRIDAY Supply Chain and Logisitcs Room 3

Session Chair: Sinan Salman, College of Technological Innovation, Zayed University, Abu Dhabi, UAE

ID 503 Determination of dispatch capacity to improve the order fulfillment process
Marco A. Heredia Castro, Leonardo G. Hernández Landa, and Rosa E. Mata-Martinez, Industrial Engineering and Administration Department, Autonomous University of Nuevo León, Nuevo León, México

ID 212 A Manufacturer Opening Decision of Electric Motorcycle Conversion Kit Due to Tax Reduction Policy: A Case Study
Achmad Habibie, Wahyudi Sutopo, and Muhammad Hisjam, Master Program of Industrial Engineering Department, Universitas Sebelas Maret, Surakarta, Indonesia

ID 594 On the Use of Elitism to Improve Convergence of the Chemical Reaction Optimization Algorithm in Discrete Optimization Problems
Sinan Salman, College of Technological Innovation, Zayed University, Abu Dhabi, UAE

ID 308 An Efficient Ant Colony Algorithm for Multi-Depot Heterogeneous Fleet Green Vehicle Routing Problem
Prattusha Bhattacharjee, Nafi Ahmed, MD. Shaiful Akbar and MD. Saimum Habib, Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

ID 437 Alleviating airport terminal congestion through dynamic space reallocation

Pierrette Zouein, Marc Haddad, Pia El Hajj and Rouba Bettany, Department of Industrial and Mechanical Engineering, Lebanese American University, 211 East 46th Street, New York, N.Y. 10017, USA

ID 620 Network Topology Design for Optimal Order Fulfillment via e-Commerce Warehouse and Marketplace Platforms
Syed Tanveer Ahmed, Supply Chain Design, Flipkart Internet Pvt. Ltd., Bangalore, Karnataka 560037, India

ID 347 Pedestrian Walking Direction Classification for Moroccan Road Safety
Safaâ DAFRALLAH, ENSA Kenitra, LGS Laboratory, Ibn Tofail University, Morocco and INSA Rouen, LITIS Laboratory, Rouen Normandie University, France
Zakaria SABIR and Aouatif AMINE, ENSA Kenitra, LGS Laboratory, Ibn Tofail University, Kenitra, Morocco
Stéphane MOUSSET and Abdelaziz BENSRHAIR, INSA Rouen, LITIS Laboratory, Rouen Normandie University, Rouen, France

12:45 – 1:00 Break

August 14, 2020 (Friday) - Session: 1:00 – 2:00 pm

1:00 pm – 2:00 pm, FRIDAY Global Business Management Education Room 2

Session Chair: Dr. Shahram Taj, Florida Polytechnic University, Lakeland, Florida

1:00 – 1:20 (Friday)

Dr. Shahram Taj
Professor & Chair
Department of Data Science and Business Analytics
Florida Polytechnic University
Lakeland, Florida

1:20 – 1:40 (Friday)

Professor James Mennie
Assistant Professor of Business Analytics
Department of Data Science and Business Analytics
Director of Florida Industrial & Phosphate Research Institute
Florida Polytechnic University
Lakeland, Florida

Presentation Title: "***Project Based Learning***"

1:40 – 2:00 (Friday)

Dr. Douglas Carter
Assistant Professor, College of Business
Texas A&M University
San Antonio, TX, USA

Presentation Title: "***Entrepreneurship, Experiential Learning, and the Global Pivot***"

2:00 – 2:15 Break

August 14, 2020 (Friday): Session –2:15 – 3:45 pm

2:15 pm – 3:45 pm, FRIDAY Technical Track Room 1

Session Chair: Julie A. Becker, College of Engineering & Technology, Eastern Michigan University

ID 245 Robust Appointment Scheduling for Random Service Time Using Min-Max Optimization
Tasmia Jannat Tumpa and Ahmed Azab, Department of Mechanical, Automotive and Materials Engineering, University of Windsor, 401 Sunset Ave, Windsor, ON N9B 3P4, Canada
Mohammed Fazle Baki, Odette School of Business, University of Windsor, 401 Sunset Ave, Windsor, ON N9B 3P4, Canada

ID 247 Study on the effect of user-generated content in social media on the process of product development: How to make user-generated content into a new product concept
Mohamadreza Azar Nasrabadi, Mechanical department, École de technologie supérieure (ÉTS), Montreal, Canada
Yvan Beauregard, Mechanical department, École de technologie supérieure (ÉTS) Montreal, Canada

ID 296 Control Chart Pattern Recognition: A Comparison between Statistical Correlation Measure and Support Vector Machine (SVM)

Naimur Rahman Chowdhury, Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka 1208, Bangladesh
Farhatul Janan, Department of Industrial and Production Engineering, Bangladesh University of Textiles, Dhaka 1208, Bangladesh

ID 656 Teach Phase Equilibria to Students of Sn-Bi alloys Using a Differential Scanning Calorimeter and X-ray Diffraction (XRD)
Rebecca P, Danielle R, Bradley S, Cory S, James S and Sarder S; Materials Engineering, California Polytechnic State University, 1 Grand Avenue, San Luis Obispo, CA 93407, USA

ID 254 The Relationship of Factors on the Implementation of Mass Customized/Personalized Products
Julie A. Becker, College of Engineering & Technology, Eastern Michigan University

ID 485 The Importance of ERP for Small and Medium Enterprises
Giovani Henrique de Farias, Matheus Augusto T. C. Pedroso, Rodrigo Luiz Gigante and Henrique Ewbank de M. Vieira, Facens University, Sorocaba, SP Brazil

2:15 pm – 3:45 pm, FRIDAY Engineering Education Room 2

Session Chair: Ali ElKamel, University of Waterloo Waterloo Ontario Canada

ID 645 Some Insights on Social Inclusion in Engineering Education
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

ID 486 Engineering Economics Analysis Course – from Flipped Classroom to Distance Teaching
Mayra I. Méndez-Piñero, Industrial Engineering Department, University of Puerto Rico, Mayagüez, PR 00680

ID 275 Using MS Excel to Design and Optimize Response Surface Methodology-Based Engineering Problems
Omar Magdi Khalifa, Khalifa University, Abu Dhabi, UAE.
Shafeeq Ahmed Syed Ali, Monash University, Jalan Lagoon Selatan, Bandar Sunway, Malaysia
Ahmed Syed Ali, Khalifa University, Abu Dhabi, UAE.
Hedia Fgaier, University of Waterloo Waterloo Ontario Canada
Ali ElKamel, University of Waterloo Waterloo Ontario Canada

ID 327 A Semester Project to Promote Increase Understanding of Ethical Principles
Ralph Ocon, Construction Science and Organizational Leadership, Purdue University Northwest, Hammond, IN 46323, USA

ID 418 Abstract Design for Time-Based Rigging Solutions in Computer Graphics Education
Ryan English, Visual & Built Environments, College of Engineering &Technology, Eastern Michigan University, Ypsilanti, MI 48075, USA

ID 357 Developing an introductory engineering management course – A case study
Mayra I. Méndez-Piñero, Industrial Engineering Department, University of Puerto Rico, Mayagüez, PR 00680

ID 318 The Shapley Value for Partially Defined Cooperative Games
M. Josune Albizuri and José M. Zarzuelo, Department of Applied Economics IV, The Basque Country University, Bilbao, Spain
Satoshi Masuya, Department of Business Management, Daito Bunka University, Tokyo, Japan

ID 003 Some Insights on Engineering Education 4.0
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

2:15 pm – 3:45 pm, FRIDAY Technical Track Room 3

Session Chair: Banu Y. Ekren, Department of Industrial Engineering, Yasar University, Bornova, Izmir, TURKEY

ID 243 Simulation of Coronavirus spread: Concerns and Facts
Mariam Alhammadi and Waleed Khalil, Mechanical Engineering Department, United Arab Emirates University, Al Ain, UAE

ID 002 Evaluation and Analysis of Students Feedback on Industry 4.0 Virtual Lab developed for Manufacturing Engineering Education
Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa

ID 607 Designing a Hybrid Course for Undergraduate Engineering Education
Imane Aboutajedyne and Ahmed Aboutajeddine, Laboratory of Mechanical Engineering, Faculty of Science and Technology of Fez, Sidi Mohamed Ben Abdellah University, Fez, Morocco
Yassine Salih Alj, School of Science and Engineering, Al Akhawayn University in Ifrane, Ifrane, Morocco

ID 447 Fostering Transformative Learning Processes in Industrial Engineering Education
Manuel Woschank, Chair of Industrial Logistics, Montanuniversitaet Leoben, Leoben, Austria
Corina Pacher, Resources Innovation Center Leoben, Montanuniversitaet Leoben, Leoben, Austria

ID 009 Next Generation Digital Engineering Education: MOOCs Global Engineering Education
Banu Y. Ekren, Department of Industrial Engineering, Yasar University, Bornova, Izmir, TURKEY
Vikas Kumar, Bristol Business School, University of the West of England, Bristol, UK

ID 766 A Combined Approach to Define Kaizen International Transferability
Nabeel Mandahawi, Dept. of Logistics and Supply Chain Management, Humber Institute of Technology and Advanced Learning, Toronto, Canada
Ammar Aamer, Industrial Engineering Department, Sampoerna University, Indonesia
Faisal A-Madi, Faculty of Economic and Administrative Sciences, The Hashemite University, Jordan

ID 771 Knowledge assessment of radiation protection practices among dental professionals - A literature review
Fatma Eltarabishi, Hamad Rashid and Walid A. Metwally, Industrial Engineering and Engineering Management Department, University of Sharjah, Sharjah, UAE

3:45 – 4:00 pm Break

August 14, 2020 (Friday) - Session: 4:00 – 6:00 pm – Room 1

Awards Ceremony - Virtual

August 14, 2020 (Friday) - Session: 5:15 pm – 6:45 pm

5:15 pm – 6:45 pm, FRIDAY Technical Track Room 2

Session Chair: Mohammad Yeakub Ali, University Technology Brunei, Tungku Highway, Gadong BE1410, Brunei Darussalam

ID 702 Developing Project, Operations and Programme Management Methodologies for Sustainable Industrialisation in South Africa
Kholopane and Thakaramahlaha Lehohla, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 726 Systematic Review of Lean Manufacturing Practices in Pharmaceutical Industry
Muhammad Ali Khan, Shakeel Ahmed Shaikh and Sonia Marri, Department of Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 728 Lean Manufacturing in Pakistan: A Comprehensive Review
Muhammad Ali Khan, Abdul Salam Soomro, Shakeel Ahmed Shaikh and Muhammad Saad Memon, Department of Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 729 Assessment of Flank Wear and Tool Life in High Speed Face Milling Under Dry and Near Dry Machining
Muataz Hazza F. Al Hazza, Mechanical and Industrial Engineering Department, School of Engineering, American University of Ras Al Khaimah, PO Box 10021, United Arab Emirates
Mohammad Yeakub Ali, Mechanical Engineering Programme Area, Faculty of Engineering, Universiti Teknologi Brunei, Tungku Highway, Gadong BE1410, Brunei Darussalam
N. A. Bt. Juraimi, Department of Manufacturing and Materials Engineering, Faculty of Engineering, International Islamic University Malaysia, P.O. Box 10, 50728 Kuala Lumpur, Malaysia

ID 730 Supply Chain Management in Small and Medium Sized Enterprise in Brunei Darussalam
Haziqah Binti Haji Fauzi, Mohammad Yeakub Ali, Pg Seri Rahayu binti Pg Ya'akub, Ramesh Singh Kuldip Singh and Muataz Hazza Al Hazza
1Mechanical Engineering Programme Area, Faculty of Engineering, Universiti Teknologi Brunei, Tungku Highway, Gadong, Brunei Darussalam
2Mechanical and Industrial Engineering Department, School of Engineering, American University of Ras Al Khaimah, United Arab Emirates

5:15 pm – 6:45 pm, FRIDAY Technical Track Room 3

Session Chair: Muazu Muazu, Bayero University Kano, Nigeria

ID 681 Application half-sweep preconditioned SOR method for solving time-fractional diffusion equations
A. Sunarto, IAIN Bengkulu, Indonesia
J. Sulaiman, Faculty of Science and Natural Resources, Universiti Malaysia Sabah, Malaysia

ID 682 Analysis of the skyscaper with pushover analysis corresponding ATC-40 (Case study: The park building of Harris and Yellow Hotel, Jakarta Pusat)
Muhammad, ISRADI, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Acep, HIDAYAT, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Joewono, PRASETIJO, Faculty of Engineering, University Tun Hussein onn Malaysia, Malaysia

ID 683 Analysis of Effectiveness Service of Public Transportation Mass Rapid Transit or MRT Case Study Lebak Bulus – Bundaran HI
Muhammad, ISRADI, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Rizky, HIDAYATULLAH, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Joewono, PRASETIJO, Faculty of Engineering, University Tun Hussein onn Malaysia, Malaysia

ID 692 Operations Management: Using Overall Equipment Effectiveness Metric for Process Improvement and a Case Study
Thomas Seubert, Larsen & Toubro Infotech Ltd., Roseville, Michigan, United States

ID 731 EV Battery Recycling and Its Impact on Society
Muhammad Nadeem Akram and Walid Abdul-Kader, Department of Mechanical, Automotive, and Materials Engineering, University of Windsor, Windsor, Ontario, Canada

ID 752 Enterprise Risk Management Determinants and Operational Excellence: A Structural Modelling Approach
Muazu Muazu, Bayero University Kano, Nigeria
Rosmaini Tasmin and Nor Hazana Abdullah, Universiti Tun Hussein Onn Malaysia

6:45 – 7:00 Break

August 14, 2020 (Friday) - Session: 7:00 pm – 10:00 pm

7:00 pm – 10:00 pm, FRIDAY **OM / OR / SCM** **Room 1**

Session Chair: Wahyudi Sutopo, Industrial Engineering Department, Universitas Sebelas Maret, Surakarta Indonesia

ID 304 Multilevel Reorder Strategy-based Supply Chain Model
Hesamoddin Tahami, and Hengameh Fakhravar, Engineering Management & Systems Engineering Department, Old Dominion University, Norfolk, VA 23529, USA

ID 517 Exploratory Factor Analysis (EFA) To Measure Entrepreneur Satisfaction
Dedi Iskamto, Sekolah Tinggi Ilmu Ekonomi Riau, Indonesia
Puspa Liza Ghazali, and Asyraf Aftanorhan, Faculty of Business and Management, Universiti Sultan Zainal Abidin, Kuala Nerus, Terengganu. Malaysia
Jenita, Faculty of Syariah and Law, Universitas Islam Negeri Sultan Syarif Kasim, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia.
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 037 A Time-Series Forecasting Performance Comparison for Neural Networks with State Space and ARIMA Models
Milton Soto-Ferrari, Operations and Supply Chain Management Department, Indiana State University, Terre Haute IN 47807, USA
Odette Chams-Anturi, Department of Economic Science, Universidad de la Costa, Barranquilla, Colombia
Juan P. Escorcia-Caballero, Department of Entrepreneurship and Management, Universidad del Norte, Barranquilla, Colombia

ID 039 Analysis of Competitiveness in Supply Chain Integration and Logistics: An Evidence from a Public Hospital Network
Odette Chams-Anturi, Department of Economic Science, Universidad de la Costa, Barranquilla, Colombia
Juan P. Escorcia-Caballero, Department of Entrepreneurship and Management, Universidad del Norte, Barranquilla, Colombia
Milton Soto-Ferrari, Operations and Supply Chain Management Department, Indiana State University, Terre Haute IN 47807, USA
Anamaria P. Gomez, Department of Educational Leadership, Research and Technology, Western Michigan University, Kalamazoo, MI 49008, USA

ID 500 Comparison of Conjugate Gradient Method on Solving Unconstrained Optimization Problems
Maulana Malik, Department of Mathematics, Universitas Indonesia (UI), Depok 16424, Jawa Barat, Indonesia
Mustafa Mamat, Siti Sabariah Abas, and Ibrahim Mohammed Sulaiman, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin (UniSZA), Besut 22200, Terengganu, Malaysia
Sukono, Department of Mathematics, Universitas Padjadjaran (Unpad), Sumedang 45363, Jawa Barat, Indonesia
Abdul Talib Bon, Department of Production and Operations, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Johor, Malaysia

ID 497 Solving Unconstrained Minimization Problems with a New Hybrid Conjugate Gradient Method
Maulana Malik, Department of Mathematics, Universitas Indonesia (UI), Depok 16424, Jawa Barat, Indonesia
Mustafa Mamat, Siti Sabariah Abas and Ibrahim Mohammed Sulaiman, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin (UniSZA), Besut 22200, Terengganu, Malaysia
Sukono, Department of Mathematics, Universitas Padjadjaran (Unpad), Jatinangor 45363, Jawa Barat, Indonesia
Abdul Talib Bon, Department of Production and Operations, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Johor, Malaysia

ID 042 Determination of Optimum Layout and Marketing Strategies based on Data Mining Technique: A Case Study
Palmy Rawinda Meliala, Arbian Abdillah, Nael Naufal Fiantama, and Zakka Ugih Rizqi, Department of Industrial Engineering, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 309 Modeling and Simulation of Student Registration Process by Using ARENA
Muhammad Marsudi, Department of Industrial Engineering, Islamic University of Kalimantan Muhammad Arsyad Albanjari, Banjarmasin, Indonesia
Hani Shafeek, Department of Industrial Engineering, University of Jeddah, KSA and Industrial College of Education, Suez Canal University, Egypt

ID 310 Comparison of First In First Out with Shortest Job First in a Production Schedule Development: A Case of Backpack Production Scheduling System
Iqbal Abdul Jabbar, Ade Kania Ningsih and Faiza Renaldi,Department of Informatics, Universitas Jenderal Achmad Yani, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 244 A Systematic Literature Review of Technology Transfer Offices: Research Trends, Collaboration, Assessment, and Frameworks
Darminto Pujotomo, Syed Ahmad Helmi Syed Hassan and Azanizawati Ma'aram, School of Mechanical Engineering, Faculty of Engineering, Universiti Teknologi Malaysia, UTM Skudai, 81310, Johor, Malaysia
Wahyudi Sutopo, Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta Indonesia

ID 609 Implementation of Production Monitoring Systems in a Small Textile Company
Risma Trisdiyanti, Faiza Renaldi, and Fajri Rakhmat Umbara, Departement of Informatics, Universitas Jenderal Achmad Yani, Cimahi – Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 590 The Design of Website-Based Information System of Natural Disaster Relief Supplies in Merapi Disaster Management in Sleman, Yogyakarta Province
Naniek Utami Handayani, Ghifari Basyir, and Diana puspitasari, Department of Industrial Engineering, Faculty of Engineering, Diponegoro University Semarang, 50275, Indonesia

7:00 pm – 10:00 pm, FRIDAY Technical Track - Industry Solutions Room 2

Session Chair: José Ochoa, University Monterrey, Nuevo León, Mexico

ID 340 Post-pandemic Shift to Embrace Remote Work: Mining Social Media Data
Zahra Daneshfar, School of Marketing, Curtin University, Perth, Australia

ID 429 The Role of Price and Service Convenience on Jakarta's Consumer Purchase Decisions in Top 5 Marketplace Mediated by Consumer's Perceived Value
Gidion P. Adirinekso, Department of Management Faculty Economics and Business, Universitas Kristen Krida Wacana, Jakarta, 11470 Indonesia
John Tampil Purba, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang 15811, Indonesia
Sidik Budiono, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang 15811, Indonesia
Wilson Rajaguguk, Department of Management Faculty of Economics and Business, Universitas Kristen Indonesia, Jakarta 13630, Indonesia

ID 277 Impact of Digital Transformation on Employee Engagement Influenced by Work Stress on Private Banking Sector in Indonesia
Shinta Winasis, Program Studi Doctoral MSDM, University Mercu Buana, Jakarta, Indonesia
Uli Wildan Nuryanto, Program Studi Doctoral MSDM, University Mercu Buana, Jakarta, Indonesia
Achmad H. Sutawidjaya, Program Studi Pascasarjana, University Mercu Buana, Jakarta, Indonesia

ID 015 Sorghum, its characteristics and why it could be the perfect substitute for plastics in disposable products
José Ochoa, University Monterrey, Nuevo León, Mexico

ID 361 Total Product Life Cycle for Medical Device Industry Using Windchill PLM Modules
Srinivas Madhugiri Dwarakanath, Sr Project Manager, ITC Infotech (USA) Inc., Troy, MI 48084, USA
Malek Dukaly, Mechanical Engineering Department, Lawrence Technological University, Michigan, USA
Natyashree Gupta Hassan Srinivasa, PLM Technical Architect, TEKSoft Systems Inc., Troy, MI, 48083 USA
Jalpankumar P Patel, Vehicle Architect, Ford Motor Company, MI, USA

ID 647 Industry Process Practices and their Correlation with the Logistics Performance Index and Cost
Diego Karachas, School of Administration and Public Accounting, Universidad Nacional de Colombia, Bogotá, Colombia
José M. Díaz P., School of Basic Sciences, Technology and Engineering, National Open and Distance University, Bogotá, Colombia
Wilson A. Pinzón R., Technology Faculty, Francisco José de Caldas District University, Bogotá. Colombia

ID 612 Evaluation of Online Stock Trading Platforms for Filipino Investors/Traders in the Philippine Market amidst the COVID-19 Pandemic
Mary Grace M. Benignos, Business and Accountancy Department, AMA Computer University, 59 Panay Ave, Diliman, Quezon City
Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Aurora Blvd, Cubao Quezon City

ID 435 Production Monitoring Information System: Managing Supply and Demand in the Textile Factory
Hendra Abdul Rohman, Faiza Renaldi, and Fajri Rakhmat Umbara, Dept. Of Informatics, Universitas Jenderal Achmad Yani, Cimahi - Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 146 Internal Control Analysis of the Effectiveness of Inventory Management in PG. KA
Ibtisam, Student Faculty Economy and Business, Universitas Narotama, Surabaya, Indonesia
Rony Wardhana, Avi Sunani, Soebandi, and I.G.A.Aju Nitya Dharmani, Faculty Economy And Business, Narotama University, Surabaya, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 540 Daily Temperature Prediction Using Recurrent Neural Networks and Long-Short Term Memory
Ike Sri Rahayu, Esmeralda C Djamal, and Ridwan Ilyas, Department of Informatics, Universitas Jenderal Achmad Yani, West Java, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 732: Flank Wear Prediction in High-Speed Face Milling using Monte Carlo and Statistical Method: A Comparative Study
Muataz Hazza F. Al Hazza 1, Mohammad Yeakub Ali 2, Taufik O 3. and Erry Y. T. Adesta 3
1Mechanical and Industrial Engineering Department, School of Engineering, American University of Ras Al Khaimah, PO Box 10021, United Arab Emirates
2 Mechanical Engineering Programme Area, Faculty of Engineering, Universiti Teknologi Brunei, Tungku Highway, Gadong BE1410, Brunei Darussalam
1 Department of Manufacturing and Materials Engineering, Faculty of Engineering, International Islamic University Malaysia, P.O. Box 10, 50728 Kuala Lumpur, Malaysia

7:00 pm – 10:00 pm, FRIDAY Engineering Education Room 3

Session Chair:

ID 280 A Framework for Developing Technopreneurship and Innovation System: A Comparative Study of Agricultural Drone Technology Development in Indonesia
Nida An Khofiyah, Master Program of Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia
Wahyudi Sutopo and Muhammad Hisjam, Research Group Industrial Engineering and Techno-Economic, Department of Industrial Engineering Universitas Sebelas Maret, Surakarta, Jl. Ir. Sutami, 36 A, Surakarta, Indonesia

ID 238 Global Business Strategy for Commercializing a Technology of Drone: A Lesson Learned from DJI Drones and Parrot Drones
Nida An Khofiyah, Master Program of Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia
Wahyudi Sutopo, Research Group Industrial Engineering and Techno-Economic, Department of Industrial Engineering, Universitas Sebelas Maret, Surakarta, Jl. Ir. Sutami, 36 A, Surakarta, Indonesia

Rakhman Ardiansyah, Head of Production & Procurement Department StartUp Frogs Indonesia, PT. Inovasi Solusi Transportasi Indonesia, Jl. Tarudan 43 b, Bangunharjo, Sewon, Bantul, Daerah Istimewa Yogyakarta, Indonesia

ID 556 Wireless Sensor Networks for Soil Nutrition to Increase Agricultural Productivity
Deden Ardiansyah, and Akbar Sugih Miftahul Huda, Departement of Computer Technologies, Vocational School, Pakuan University, Indonesia
Eneng Tita Tosida, Department of Computer Science, Faculty of Mathematics and Natural Sciences, Universitas Pakuan, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 518 Impact of Employee Satisfaction on Work Discipline in Government Office in Indonesia
Dedi Iskamto, Sekolah Tinggi Ilmu Ekonomi Riau, Pekanbaru Indonesia
Kurniati Karim, Sekolah Tinggi Ilmu Ekonomi Sakti Alam Kerinci, Jambi, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia.
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 519 Optimal Reinsurance and Investment Problem under Fractional Power Utility Function
Maulana Malik, Department of Mathematics, Universitas Indonesia (UI), Depok 16424, Jawa Barat, Indonesia
Mustafa Mamat, Siti Sabariah Abas, and Ibrahim Mohammed Sulaiman, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin (UniSZA), Besut 22200, Terengganu, Malaysia
Sukono, Department of Mathematics, Universitas Padjadjaran (Unpad), Jatinangor 45363, Jawa Barat, Indonesia
Abdul Talib Bon, Department of Production and Operations, Universiti Tun Hussein Onn Malaysia (UTHM), Parit Raja 86400, Johor, Malaysia

ID 237 Lesson Learned in Developing and Implementing Global Business Strategy to Commercialize Battery Swap Technology: A Comparative Study
Era Febriana Aqidawati, Master Program of Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia
Wahyudi Sutopo and Eko Pujiyanto, Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia

ID 536 A Literature Review of Islamic Transactions Profit
Nadhirah Gazali, School of Informatics and Applied Mathematics, Universiti Malaysia Terengganu, 21030 Kuala Terengganu, Terengganu, Malaysia
Nurfadhlina Abdul Halim, Faculty of Science and Technology, Universiti Sains Islam Malaysia (USIM), Baru Nilai, Nilai, Negeri Sembilan, Malaysia
Puspa Liza Ghazali, Salman Lambak, Hazimi Mohd Foziah, Juliana Arifin and Ahmad Shukri Yazid, Faculty of Business and Management, Universiti Sultan Zainal Abidin, Gong Badak Campus, 21300 Kuala Terengganu, Terengganu, Malaysia.
Eni Noreni Mohamad Zain, Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Pengkalan Chepa, Kota Bharu, Kelantan, Malaysia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 614 Web-Based Application of High School Laboratory Administration: Case Study at SMA Pasundan 8, Bandung, Indonesia
Sulistijono Sulistijono and Mahir Pradana, Telkom University, Jalan Terusan Buah Batu, Bandung 40257, Indonesia
Diki Wahyu Nugraha, M Amran Hakim Siregar and Roni Habibi, Prodi/Jurusan D4 Teknik Informatika Politeknik Pos Indonesia, Jln. Sari Asih No. 54, 40151 Bandung, Jawa Barat, Indonesia
Imanuddin Hasbi, Telkom University, Jalan Terusan Buah Batu, Bandung 40257, Indonesia

ID 420 Effect of Implementation of National Higher Education Standard and ISO Quality Management System through Quality Performance to Increase Competitive Advantage (Private Higher Education Study in Surabaya)
Hermien Tridayanti, Narotama University, Surabaya, Indonesia

ID 091 Development of Tooth Retainer by 3D Printer
Sarder Sadique, California Polytechnic State University, San Luis Obispo, CA, United States

ID 028 An Ergonomic Design of Six-Wheeled Trolley for Transportation of a 100-kg Weight Load
Querubin M. Esteban, Jasper M. Villareal, Kichan Yoo, and Engr. Sherwin S. Magon, School of Mechanical and Manufacturing Engineering Mapua University, 658 Muralla St., Intramuros, Manila, 1002, Philippines
Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, Mapua University, 658 Muralla St., Intramuros, Manila, 1002, Philippines

ID 162 Using Design of Experiment & Steepest Descent Methodologies to Improve Cooling Process in Engine Block Manufacturing System
Khaleel Al ithawi and Kingman Yee, A. Leon Linton Department of Mechanical Engineering, Lawrence Technological University, Southfield, MI 48075, USA
Sabah Abro, Engineering Technology Department, Lawrence Technological University, Southfield, MI 48075, USA
M. Ishtiaq Hussain, General Motors Powertrain Pontiac, 823 Joslyn Ave Pontiac, Michigan

7:00 pm – 10:00 pm, FRIDAY Technical Track Room 4

Session Chair: Abdul Talib Bon, University Tun Hussein Onn Malaysia, Malaysia

ID 697 Application of AHP for Optimal Resource Allocation of DOST Grants-in-Aid
Armela K. Razo, Special Projects Division, Department of Science and Technology, Taguig City, Philippines
Giselle Eve O. Siladan, Department of Science and Technology Regional Office No. XII, Department of Science and Technology, Taguig City, Philippines
Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 698 Impact Assessment on DOST Small Enterprise Technology Upgrading Program (SETUP) – assisted MSMEs using Analytic Hierarchy (AHP) Model

Michael John Rivera, Nabil A. Hadji Yassin, and Jennifer Queddeng, School of Industrial Engineering and Engineering Management, Mapua University, Manila, Philippines
Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 699 Assessment on the Assistance Program for Inventions of the DOST-Technology Application and Promotion Institute (TAPI) Using Analytic Hierarchy Process (AHP) Approach
Janeth C. Vidal and Cristopher C. Bauzon, MAPUA University – Manila and DOST-Technology Application and Promotion Institute, Industrial Technology Development Institute, Taguig City, Philippines
Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 700 Capacity Improvement of an Advanced Manufacturing using Lean Six Sigma
Mark Anthony L. Alata and Rex Aurelius C. Robielos, School of Industrial Engineering and Engineering Management, Mapua University, Manila, Philippines

ID 703 Evaluation of the road pavement damage with bina marga method and pavement condition index method
Muhammad, ISRADI, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Ali, SUBHANA, Faculty of Engineering, University Mercu Buana Jakarta, Indonesia
Joewono, PRASETIJO, Faculty of Engineering, University Tun Hussein onn Malaysia, Malaysia

ID 704 Role of Law and Social Stratification for Online Taxibike Consumer According to the Republicof Indonesia Law Number 8 1999 Considering Consumer Protection
Evidiannita Candrawati, Rini Kusnari, Hermi, and Nur Joko Sariono, Students of Master of Law, Faculty of Law, University of Wijaya Kusuma Surabaya, Indonesia

ID 710 Capital Budgeting in Decision Making of Solar Panel Installation Project on Building Offices in Balikpapan
Husen Maq Desi, S.si, A Student on Magister Management Technology, Institute of Technology Surabaya (ITS), Surabaya, Indonesia
Christiono Utomo, A Supervisor on Management Technology Department, Institute of Technology Surabaya (ITS), Surabaya, Indonesia

ID 715 Measuring the Quality of Teachers and Education Personnel as one of the Determinants of High School Quality in Semarang City, Central Java Province
Moh. Zamili, Lecturer at the Tarbiyah Faculty, Universitas Ibrahimy, Situbondo Jawa Timur 68374, Indonesia
Sri Suwitri, Professor at the Faculty of Social and Political Science, Universitas Tidar, Magelang Jawa Tengah Indonesia
Ida Hayu Dwimawanti, Lecturer at the Faculty of Social and Political Science, Universitas Diponegoro, Semarang Central Java Indonesia
Kismartini, Lecturer at the Faculty of Social and Political Science, Universitas Diponegoro, Semarang Central Java Indonesia

ID 716 Analysis of Sustainable Financial Investment Feasibility Study on Casase Citrene Housing
Syaiful Syaiful, Civil Engineering Departement, Ibn Khaldun University Bogor, INDONESIA
Soni Sutarsa, Civil Engineering Departement, Ibn Khaldun University Bogor, INDONESIA

ID 717 Soft System Methodology for Smart Campus (Case: Reconnaissance Investigation)
Eko Hadi Purwanto, Informatic Engineering Department Ibn Khaldun Bogor, INDONESIA
Sri Wiwoho Mudjanarko, Civil Engineering Departement Narotama University Surabaya, Indonesia
Syaiful Syaiful, Civil Engineering Departement Ibn Khaldun University Bogor, INDONESIA

ID 719 The Application Of Academic Information System Measurement Software With Iso Standard
Ritzkal, Informatic Department Ibn Khaldun Bogor, Indonesia
Syaiful Syaiful, Civil Engineering Departement Ibn Khaldun University Bogor, Indonesia

ID 720 Transformation of Islands, Public Services (Case study: West Halmahera Regency)
Yulinda Uang, Y. Warella, Endang Larasati, and Sri Suwitri, Department of Public Administration, Faculty of Social and Political Sciences,Universitas Diponegoro, Semarang – Indonesia

ID 721 The Decision Case on Gaussian Binary Data
Budi Pratikno, and Parwati, M.S.R, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Jenderal Soedirman, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 723 Identification of Cattle Farms Chain Madura Ecosystem Based Blue Economy Concept
M. Fuad FM, Asfan Asfan, Millatul Ullya and Khoirul Hidayat, Department of Agricultural Technology, Faculty of Agricultural, Trunojoyo University, Indonesia

ID 724 Identification of Saponins and Flavonoids in Lime (Citrus aurantifolia) Peel Extract
Siti Nur Husnul Yusmiati, Evy Ratnasari Ekawati and Dheasy Herawati, Faculty of Health Sciences, Maarif Hasyim Latif University, Sidoarjo, Indonesia

IEOM Student Chapter Activities

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IEOM Montreal Student Chapter, Concordia University, Montreal QC, Canada

IEOM Student Chapter at Humber Institute of Technology & Advanced Learning, Toronto, Canada

IEOM KFUPM Student Chapter

IEOM Student Chapter at Shipbuilding Institute of Polytechnic Surabaya

IEOM Student Chapter at Sapir Academic College, Isarel

King Saud University, Riyadh, Saudi Arabia

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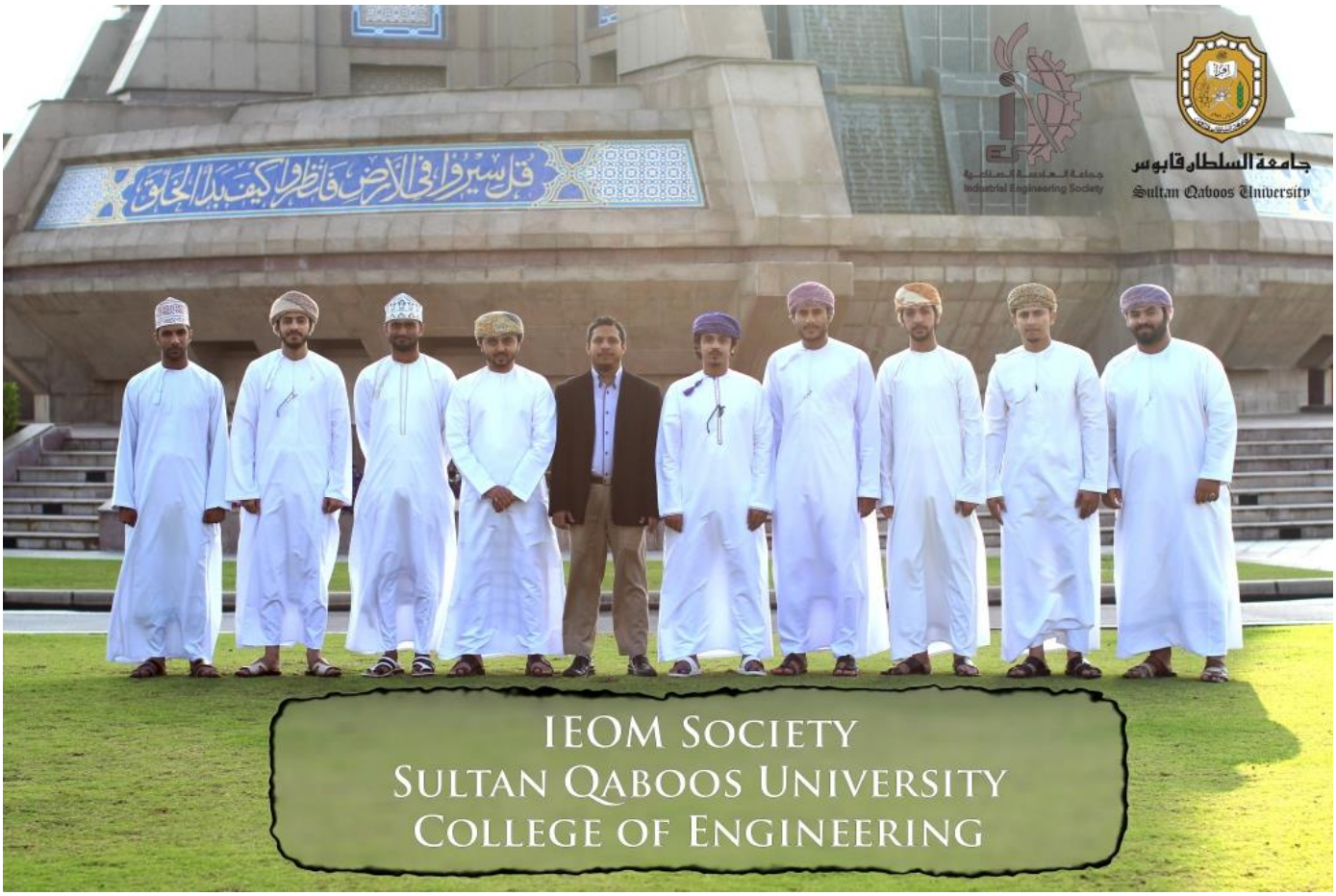
IEOM KAU-Rabigh Student Chapter



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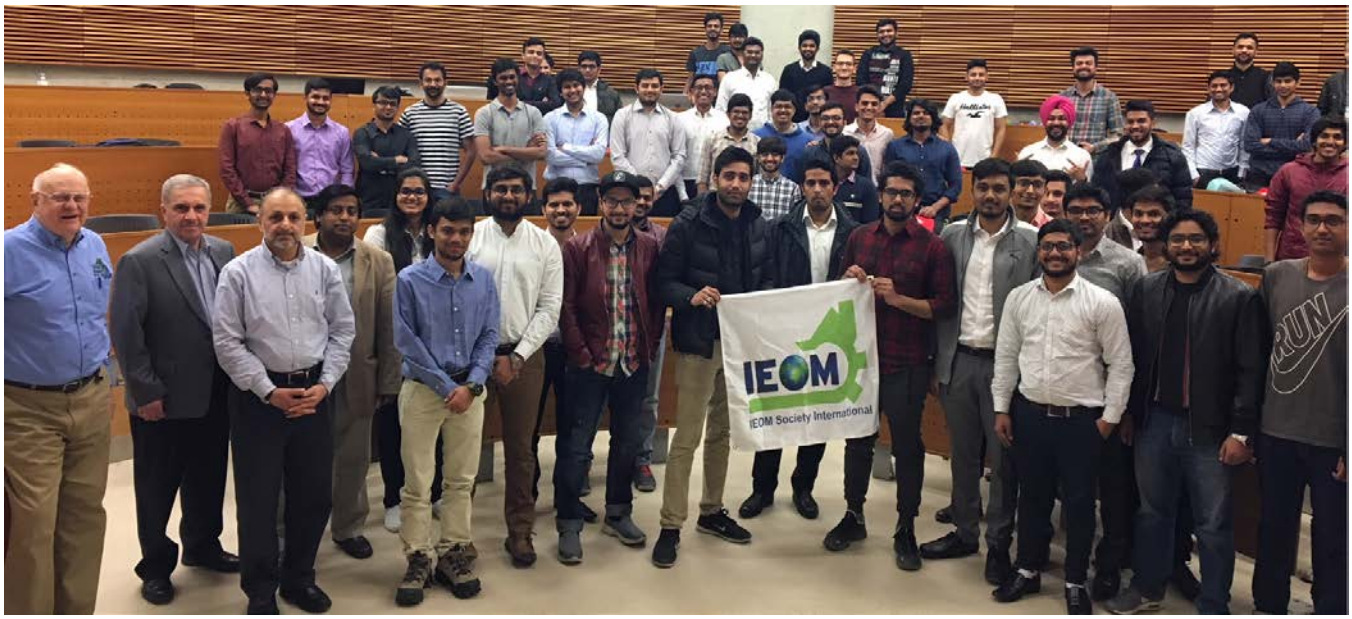
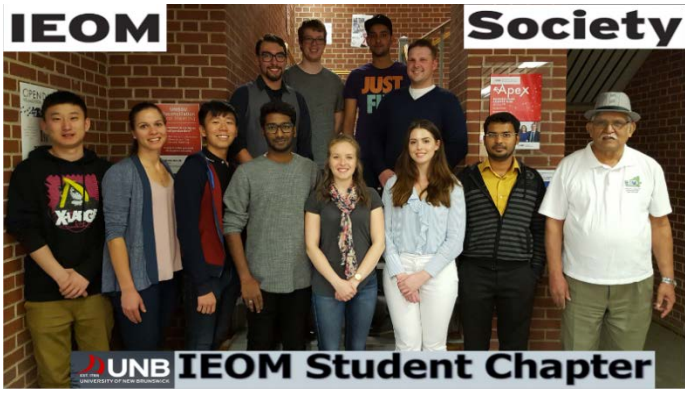
University of Malaysia, Sabah



University of Windsor, Canada

Lawrence Technological University



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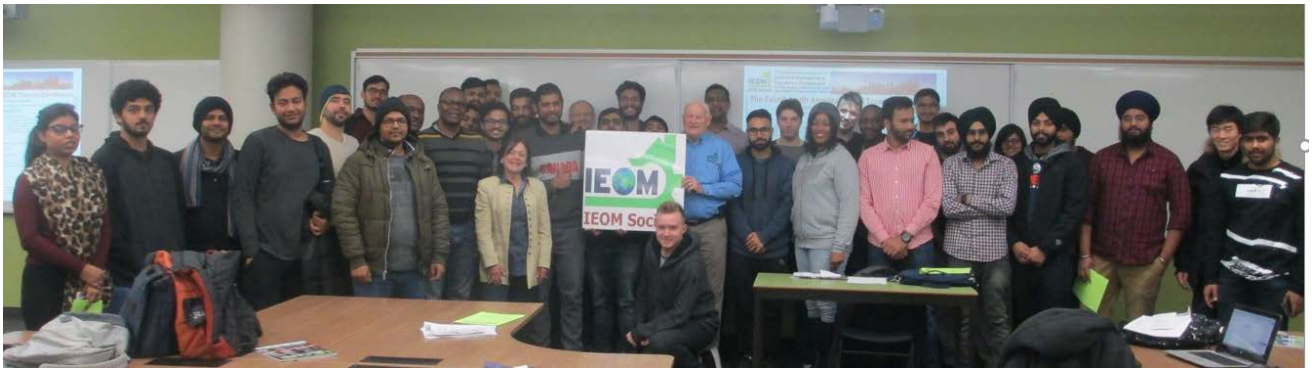
Zagazig University, Egypt



Sheridan College, Brampton, Ontario, Canada

IEOM Student Chapter at Sudan University of Science and Technology, Khartoum

IEOM Student Chapter at Ecole Mohammadia d'Ingénieurs (EMI), Mohammed V University of Rabat, Morocco

IEOM Student Chapter at King Abdulaziz University (KAU), Jeddah, Saudi Arabia

Faculty Advisor
Dr. Ammar Al-Qahtani, Department of Industrial Engineering

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Director of Program/Activities: noura Alghurayr
Director of Membership: Saja al-sultan
Director of Communication: Reema Altuwaijri and Yara Alghamdi

IEOM Student Chapter at Taibah University, Medina, Saudi Arabia

Faculty Advisor
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Vice President: Khaled Hejazy
Secretary: Hamzah Amar
Treasurer: Osamah Awamah
Director of Program/Activities: Sufian Al- Muhammady
Director of Membership: Muhammad Babukair
Director of Communication: Mahmud Al-Basuny

IEOM Student Chapter at University of Science & Technology of Fujairah (USTF), Fujairah - United Arab Emirates (UAE)

Faculty Advisor
Dr. Amir J. Majid, Associate Professor, College of Engineering

Chapter Officers
Vice President: Dr. Amir J. Majid
Director of Social Media: Ahmed Sameer Issam Abdullatif
Director of Membership: Osama Ahmad Alnablsi
Director of Communication: Nouf Obaid Alzaabi

University of Costa Rica Event

2nd IMEOM Dhaka Conference, December 12-13, 2019

IEOM Detroit Office Visits

First GCC Conference in Riyadh, Saudi Arabia, November 26-28, 2019

4th North American IEOM Conference, October 23-25, 2019

Third European IEOM Conference in Pilsen, Czech Republic, July 23-26, 2019

First Central American Symposium on Industry 4.0, Logistics 4.0 and Manufacturing 4.0, San Jose, Costa Rica, June 12-13, 2019

9th IEOM Annual International Conference, Bangkok, Thailand, March 5-7, 2019

Second IEOM Fellows Induction at the IEOM Bangkok Conference on March 6, 2019

University of Monterrey (UDEM), Mexico Visit, May 29-30, 2018

Faculty of Civil and Industrial Engineering of Sapienza – University of Rome, Italy

6th North American IEOM Conference

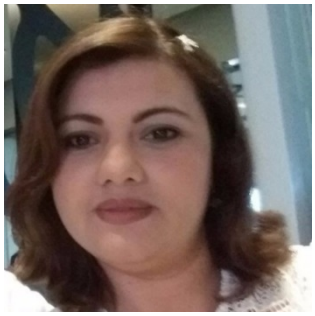
Monterrey, Mexico, November 3-5, 2021

Venue: Cintermex Convention Center

http://www.ieomsociety.org/monterrey2020/

Conference Chairs:

Dr. Bernaro Villarreal Celstino
Engineering Department
University of Monterrey, México



Ing. Luz María Valdez de la Rosa
Engineering Department
University of Monterrey, México

Ing. Jacobo Tijerina Aguilera
Director of Extension, Consulting and Research Division
University of Monterrey, México

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11th Annual Conference on Industrial Engineering and Operations Management

Singapore, Hilton Hotel, March 9-11, 2021

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IEOM-FlexSim Student Simulation Competition

Computer-based simulation is one of the most powerful tools available today to support problem solving and analyze complex systems. The IEOM-FlexSim Student Simulation Competition is an international simulation competition hosted by the Industrial Engineering and Operations Management Society and FlexSim Software Products, Inc. that provides students with an opportunity to demonstrate their problem-solving, presentation, and discrete-event simulation modeling and analysis skills.

Awards:

- All team members that submit a project will receive a Certification of Participation.
- Up to four teams will be selected as finalists. These teams will continue the competition at the IEOM International Conference in Singapore. The finalists will be ranked in terms of their excellence in simulation modeling and analysis and the overall quality of their project.

Cash Prizes

- Cash prizes for each team, as shown below, and certificates of excellence for each team member, will be presented to the finalists at the conference's award dinner in Singapore.

First Prize	$1,500	Second Prize	$1,000	Third Prize	$750	Fourth Prize	$500

http://ieomsociety.org/singapore2021/simulation-competition/

IEOM Student Chapters around World

Australia
1. Queensland University of Technology (QUT), Brisbane

Bahrain
2. University of Bahrain

Bangladesh
3. Ahsanullah University of Science & Technology, Dhaka
4. Bangladesh Univ. of Engineering and Technology (BUET)
5. Islamic University of Technology (IUT)
6. International Islamic University of Chittagong (IIUC)
7. Jessore University of Science and Technology (JUST)
8. Khulna University
9. Khulna University of Engineering and Technology (KUET)
10. Military Institute of Science and Technology (MIST)
11. Bangladesh Institute of Management (BIM)

Botswana
12. University of Botswana

Brazil
13. Federal University of Sao Carlos (UFSCar)
14. Federal University of Santa Catarina (UFSC)
15. Univeristy of Sao Paulo (USP) – Sao Carlos
16. Federal Institute of Sao Paulo (IFSP) – Sorocaba
17. Faculdade de Engenharia de Sorocaba (FACENS)

Canada
18. Concordia University
19. Humber Institute of Technology and Advanced Learning
20. Polytechnique Montreal
21. University of New Brunswick at Fredericton
22. University of Waterloo
23. University of Windsor

Colombia
24. Fundación Univ. Tecn. Comfenalco, Cartagena, Bolívar
25. University of Rosario, Bogota
26. University of Quindio
27. Universidad de San Buenaventura, Cali, Valle

Costa Rica
28. University of Costa Rica

Czech Republic
29. University of West Bohemia, Pilsen

Ecuador
30. Technical University of Ambato

Egypt
31. Zagazig University

Finland
32. University of Vaasa

France
33. IESEG School of Management
34. Lorraine University, Metz

Greece
35. Accra Technical University

Ghana
36. Technological Education Institute (TEI), Thessaly, Larissa

India
37. College of Engineering and Technology, Bhubaneswar, Odisha, India
38. College of Engineering Guindy (Anna University), Chennai
39. Guru Nanak Dev Engineering College, Ludhiana, Punjab
40. Pandit Dendayal Petroleum Univ., Ahmedabad, Gujrat
41. P.D.A. College of Engineering, Gulbarga, Karnataka, India
42. Vellore Institute of Technology
43. Vidya Jyothi Institute of Technology, Hyderabad

Indonesia
44. Bina Nusantara University (Binus), Indonesia
45. Institut Teknologi Bandung
46. Institut Teknologi Sepuluh Nopember (ITS)
47. Sampoerna University, Jakarta
48. Shipbuilding Institute of Polytechnic Surabaya
49. Universitas Diponegoro (Undip)
50. University of Indonesia
51. Universitas Sebelas Maret (UNS), Surakarta
52. Tarumanagara University

Iran
53. MehrAstan University, Guilan
54. University of Eyvanekey

Iraq
55. Babylon University

Israel
56. Sapir Academic College

Italy
57. University of Salento

Japan
58. Ashikaga University

Kenya
59. Kenyatta University, Nairobi

Libya
60. Libyan Academy

Malaysia
61. Universiti Malaysia Sabah (UMS)
62. Universiti Putra Malaysia (UPM)
63. Universiti Teknologi Malaysia (UTM)
64. Universiti Tun Hussein Onn Malaysia (UTHM)
65. Universiti Utara Malaysia (UUM)

Morocco
66. Akhawayn University
67. Ecole Mohammadia d'Ingénieurs (EMI)

Namibia
68. National Univ. of Sci. and Tech. in Windhoek, Namibia

Nepal
69. Kathmandu University
70. Tribhuvan University

Nigeria
71. Covenant University
72. University of Ibadan

Oman
73. Sultan Qaboos University

Pakistan
74. Dawood University of Engineering and Technology, Karachi
75. Government College University Faisalabad
76. Mehran University of Engineering and Technology, Jamshoro, Sindh
77. Riphah International University, Lahore Campus
78. University of Engineering and Technology, Lahore

Papua New Guinea
79. Papua New Guinea University of Technology

Paraguay
80. National University

Peru
81. National University of San Antonio Abad, Cusco, Peru

Philippines
82. Bulacan State University, Malolos City, Bulacan
83. LPU Laguna
84. Mapua University

Qatar
85. Qatar University

Saudi Arabia
86. Alfaisal University
87. Effat University
88. King Abdulaziz University (KAU)
89. King Abdulaziz University, Rabigh
90. King Fahd University of Petroleum and Minerals (KFUPM)
91. King Saud University (KSU)
92. Umm Al-Qura University (UQU)
93. Princes Nourah University (PNU)
94. Prince Sattam Bin Abdulaziz University (PSAU)
95. Prince Sultan University (PSU)
96. Taibah University
97. University of Tabuk
98. Taibah University
99.

South Africa
100. Durban University of Technology (DUT)
101. Tshwane University of Technology (TUT)
102. University of Johannesburg (UJ)
103. University of South Africa (UNISA)
104. Vaal University of Technology (VUT)

Sri Lanka
105. University of Kelaniya
106. University of Peradeniya

Sudan
107. Sudan University of Science and Technology, Khartoum

Thailand
108. Chulalongkorn University, Bangkok
109. Chiang Mai University

UAE
110. University of Science & Technology of Fujairah (USTF)

UK
111. University of Derby
112. University of the West of England (UWE), Bristol

USA
113. Central Connecticut State University
114. Eastern Michigan University
115. Lawrence Technological University, Michigan, USA

Venezuela
116. Catholic University Andrés Bello (UCAB), Caracas

Zambia
117. University of Zambia
118. Copperbelt University
119. Evelyn Hone College

Zimbabwe
120. University of Zimbabwe, Harare
121. National University of Science and Technology

IEOM Global Council

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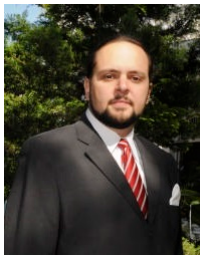
Mt Pleasant, Harare, Zimbabwe

Professor Abdul Talib Bon, Ph.D.
Professor of Technology Management, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia



Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
Sorocaba, Sao Paulo, Brazil

Dr. Eldon Caldwell
Director, Industrial Engineering Department
Engineering School
University of Costa Rica
San Jose, Costa Rica

Prof. Jose Arturo Garza-Reyes, Ph.D.
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. Umar Al-Turki
Professor
Systems Engineering Department
King Fahd University of Petroleum and Minerals
Dhahran, Saudi Arabia

Professor Eui H. Park, Ph.D.
Graduate Program Coordinator
Professor, Department of Industrial and Systems Engineering
North Carolina A&T State University
Greensboro, North Carolina, USA

Dr. Ilham Kissani
Assistant Professor of Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

Professor Abu Masud, Ph.D., P.E.
Emeritus Professor
Department of Industrial and Manufacturing Engineering
Wichita State University
Kansas, USA

Dr. Abdur Rahim
Professor
Faculty of Business Administration
University of New Brunswick
Fredericton, NB, Canada

Professor Hamid Parsaei, Ph.D., PE
Professor, Industrial and Systems Engineering
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USA

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Upcoming Events

2nd African International Conference on
Industrial Engineering and Operations Management
December 8-10, 2020, Harare, Zimbabwe
Venue: University of Zimbabwe
Hybrid Mode: Virtual + On-Ground


University of Zimbabwe

http://ieomsociety.org/harare2020/

Third IMEOM 2020 Dhaka
2020 IEOM Dhaka Conference

Third International Conference on Industrial and Mechanical Engineering and Operations Management (IMEOM)
December 26-27, 2020, Dhaka, Bangladesh, Venue: Krishibid Institution Bangladesh, Farmgate
http://ieomsociety.org/ieom/imeom2020/

11th IEOM International Conference
Hilton Hotel, Orchard Road, Singapore
March 9-11, 2021

Conference Website: www.ieomsociety.org/singapore2021/

2nd South American Conference on
Industrial Engineering & Operations Management
São Paulo, Brazil, April 6 – 8, 2021
Venue: Maksoud Plaza Hotel, São Paulo


www.ieomsociety.org/brazil2020/

4th EU International Conference on
Industrial Engineering & Operations Management
Rome, Italy, August 3 - 5, 2021
Venue: Sapienza – University of Rome



Conference Website: www.ieomsociety.org/rome2020/

6th North American Conference on
Industrial Engineering & Operations Management
Monterrey, Mexico, November 3-5, 2021
Venue: CINTERMEX-Monterrey Convention Center


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www.ieomsociety.org/monterrey2020/

Industrial Engineering and Operations Management Society International
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