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IEOM Society

Industrial Engineering and Operations Management Society International

IEOM Society International, 21411 Civic Center Dr., Suite 205, Southfield, Michigan 48076, USA
Phone: 1-248-450-5660, Email: info@ieomsociety.org
Welcome to the 8th North American Conference on Industrial Engineering and Operations Management in Houston, Texas, USA

To All-Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to the 8th North American International Conference on Industrial Engineering and Operations Management, June 12-15, 2023. It is hosted by Texas A&M Engineering Experiment Station Institute of Manufacturing Systems (TEES-IMS) in collaboration with University of Houston. Venue is Hilton Hotel University of Houston. This unique international conference provides a forum for academics, researchers, and practitioners from many industries to exchange ideas and share recent developments in the fields of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. There were more than 400 papers/abstracts submitted from 30 countries. After a thorough peer-review process, more than 250 have been accepted for presentation and publication. The program includes many cutting-edge topics in industrial engineering and operations management.

This conference will address many of the issues concerning the continuous improvement of quality and service. The IEOM Society is delighted to have the following keynote speakers at the 8th North American Conference:

1. Dr. Hamid R. Parsaei, Professor of Industrial & Systems Engineering, Texas A&M University, College Station, Texas
2. Dr. Satish Bukkapatnam, Professor, Industrial & Systems Engineering, Rockwell International Professor, College of Engineering and Director, TEES Institute for Manufacturing Systems, Texas A&M University, College Station, USA
3. Dr. Vivek Anand, Vice President & Head of Technology, Deloitte Consulting, Houston, TX, USA
4. Mark A. Bolen, VP of Quality, Engineering & Fleet, Cintas Corporation, Lebanon, Ohio, United States
5. Dr. Gino Lim, R. Larry and Gerlene (Gerri) R. Snider Endowed Chair and Professor & Chair, Department of Industrial Engineering, University of Houston – University Park, Houston, Texas, USA
6. José Rivera, Chief Admin Quality Officer, MD Anderson Cancer Center, Houston, Texas, United States
7. Dr. Robert Swearingen, Head of Strategic Sourcing and Supply Chain Management, Siemens GCI, Texas, USA
8. Dr. Luis Rabelo, Professor, Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, FL, USA
9. Suresh Vaidyanathan, Chief Engineer & General Manager, Refining Business Improvement, Phillips 66, Westchase, Houston, Texas
10. Bruce Webb, Chief Pilot, Director of Aviation Education and Community Outreach, Airbus Helicopters, Inc., Prairie, Texas, USA
11. Paul Perkins, President, Amatrol, Inc., Jeffersonville, Indiana, USA
12. Dr. Magdy Akladios, Chair, Department of Physical and Applied Sciences and Professor of Occupational Safety and Health with Specializations in Industrial Hygiene or Safety, University of Houston-Clear Lake, Texas, USA

At this conference, the IEOM Society will hold its Global Engineering Education session. It will feature distinguished speakers who will discuss workforce readiness and engineering education challenges and opportunities. The IEOM Industry Solutions will showcase will also be held and feature major topics including lean, six sigma, IoT, AI, data analytics and industry best practices. The IEOM Global Supply Chain and Logistics will address the global logistic challenges. Nine panel sessions have been planned: Global Engineering Education, Data Analytics, Industry 4.0, Human Factors and Ergonomics, Supply Chain, Women in Industry and Academia, Lean Six Sigma, Using Assessment to Improve Student Learning and Curriculum and Diversity & Inclusion sponsored by Ford Motor Company.

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

Our conference hosts, Texas A&M Engineering Experiment Station Institute of Manufacturing Systems (TEES-IMS) and University of Houston, would like to extend a warm welcome to all participants.

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

Dr. Satish Bukkapatnam
Conference Chair
Rockwell International Professor and Director, TEES Institute for Manufacturing Systems, Texas A&M University, College Station

Dr. Gino Lim
Conference Co-Chair
Professor & Chair, R. Larry and Gerlene (Gerri) R. Snider Endowed Chair, Dept. of Industrial Engineering, University of Houston, Texas, USA

Dr. Hamid R. Parsaei
Conference Co-Chair
Professor of Industrial & Systems Engineering, Texas A&M University, College Station, USA

Dr. Ahad Ali
Conference Co-Chair
Associate Professor and Director of IE Program, Lawrence Tech University Executive Director of IEOM

Eric Ayanegui
Industry Chair
Director Operations Engineering, Cintas Corp., Houston, Texas, USA

Prof. Don Reimer
Program Chair
Director of Membership and Chapters – IEOM Society President, The Small Business Strategy Group, Southfield, Michigan, USA
Keynote Speakers

Tuesday, June 13, 2023

**Conference Welcome and Opening:** Tuesday, June 13, 2023, 10:00 – 10:20 am

**Professor Hamid Parsaei, Ph.D., PE**
Fellow, IISE, ASEE, SME, IEOM
Professor, Department of Industrial and Systems Engineering
Director, College of Engineering Accreditation and Assessment
Texas A&M University
College Station, Texas, USA
IEOM President, 2021-2023; IEOM Vice President, 2019-2021

Dr. Hamid R. Parsaei is an internationally recognized leader in the field of manufacturing automation, leadership, engineering education, additive manufacturing, economic and financial decision making, and project management with more than three decades of experience in academia. He is awarded as a fellow IISE, ASEE, SME and IEOM.

Dr. Parsaei’s leadership experience and accomplishments include serving as Professor and Associate Dean for Academic Affairs at Texas A&M University at Qatar (TAMUQ.) He also served as the Director of Outreach and Accreditation and the Interim Chair of the Mechanical Engineering at TAMUQ while holding the rank of Professor in the Department of Industrial and Systems Engineering at Texas A&M University in College Station, Texas. Prior to joining Texas A&M University, Dr. Parsaei served as Professor and Chair of the Department of Industrial Engineering at University of Houston for 10 years and Director of Graduate Studies and Graduate Advisor for five years. He also served as Director of the Texas Manufacturing Assistance Center’s Gulf Coast Region from March 2001 to September 2005.

Dr. Parsaei is highly regarded worldwide for his scholarship. He served as Area Editor, Methodology, and as an editorial board of The Engineering Economist from June 1990 until January 1995, and he was editor in chief of three international refereed archival journals. He currently serves as a member of the editorial boards and associate editor to over fifteen peer-reviewed journals. He has been guest editor for several special issues of peer-reviewed archival journals, and has served as series editor to nine book series published by Wiley and Sons, CRC Press, Taylor and Francis, and several other publishing houses. His newest journal, Engineering Education Letters is a clear testament to Dr. Parsaei’s dedication to engineering education.

Dr. Parsaei has been principal and co-principal investigator on projects funded by NSF, Qatar Foundation, the US Department of Homeland Security, Texas Department of Transportation, Houston Transtar, the National Institute of Standards and Technology and the National Institute of Safety and Health, among others, with total funding in excess of $24 million. He has authored or co-authored 26 archival books and over 280 refereed publications that appear in archival journals and conference proceedings.

He has received several prestigious recognitions from IISE including, the Wellington Award (1993) from the Engineering Economy Division of the Institute for his original contributions to the field of engineering economics, Award of Merit in recognition of his service to the Engineering Economy Division during 1991–1992, the 2006 UPS Excellence Award for innovative development of programs directed to the development of women, minorities and people with disabilities within the field of industrial engineering. He garnered the 2016 George L. Smith Award and in 2018, he was honored with the Fred C. Crane Award for meritorious service to the IISE.

Dr. Parsaei received his M.S and Ph.D in Mechanical Engineering from Pennsylvania State University. Satish Bukkapatham has been recognized for his research contributions, and was awarded with several honors – OSU regents distinguished research award (2011), Best Paper Awards from IIE Manufacturing and Design Division Track (2009), OSU CEAT Halliburton Outstanding Award (Young Faculty 2011, Senior Faculty 2012) to name a few. Dr. Satish Bukkapatham’s research in smart manufacturing addresses the harnessing of high-resolution nonlinear dynamic information, especially from wireless micro-electromechanical systems sensors, to improve the monitoring and prognostics, mainly of ultraprecision and nanomanufacturing processes and machines, and wearable sensors for cardiorespiratory process prognostics. His research has led to over 160 peer-reviewed publications (101 published/accepted in journals and 60 in conference proceedings); five pending patents; $6.5 million in grants as PI/Co-PI from the National Science Foundation, the U.S. Department of Defense and the private sector; and 17 best-paper/poster recognitions.

**Keynote I (Day 1 Opening): Tuesday, June 13, 2023, 10:20 – 11:00 am**

**Dr. Satish Bukkapatham**
Professor, Industrial & Systems Engineering
Rockwell International Professor, College of Engineering
Director, TEES Institute for Manufacturing Systems
Affiliated Faculty, Multidisciplinary Engineering and Biomedical Engineering
Texas A&M University, College Station, Texas, USA

Satish Bukkapatham is a Professor at Texas A&M University, Director at TEES Institute for Manufacturing Systems. He is also a Rockwell International Professor. He is a co-Director of TEES-TAMU-ENSAM joint research cluster. Satish received B.Sc degree in mechanical engineering from the University Tirupati (India), M.S and Ph.D in Mechanical Engineering from Pennsylvania State University. Satish Bukkapatham has been awarded with several honors – OSU regents distinguished research award (2011), Best Paper Awards from IIE Manufacturing and Design Division Track (2009), OSU CEAT Halliburton Outstanding Award (Young Faculty 2011, Senior Faculty 2012) to name a few. Dr. Satish Bukkapatham’s research in smart manufacturing addresses the harnessing of high-resolution nonlinear dynamic information, especially from wireless micro-electromechanical systems sensors, to improve the monitoring and prognostics, mainly of ultraprecision and nanomanufacturing processes and machines, and wearable sensors for cardiorespiratory process prognostics. His research has led to over 160 peer-reviewed publications (101 published/accepted in journals and 60 in conference proceedings); five pending patents; $6.5 million in grants as PI/Co-PI from the National Science Foundation, the U.S. Department of Defense and the private sector; and 17 best-paper/poster recognitions.
Keynote II: Tuesday, June 13, 2023, 11:00 – 11:40 am

Vivek Anand, PhD  
Vice President & Head of Technology  
Deloitte Consulting  
Houston, TX, USA

Vivek Anand is the Head of Technology and Vice President of Data Science in the Strategy and Analytics practice at Deloitte Consulting where he specializes in development and implementation of AI solutions. He has successfully launched and scaled AI technology for multiple industries including manufacturing, retail, oil and gas, and life sciences. Prior to joining Deloitte, Vivek held senior positions at several technology companies, where he led the development of cutting-edge technology, software products and platforms. Vivek has authored 20+ papers and 15 patents on applications of AI and machine learning. He is the recipient of prestigious awards including World Oil Award, Society of Petroleum Engineers Formation Evaluation Award, and Society of Petrophysicists and Well Log Analysts Distinguished Speaker. Vivek holds a PhD in Chemical Engineering from Rice University and Chief Technology Officer Executive Program from Wharton School of Business.

Keynote III: Tuesday, June 13, 2023, 11:40 am – 12:20 pm

Mark A. Bolen  
VP of Quality, Engineering & Fleet  
Cintas Corporation  
Lebanon, Ohio, United States

Environmental, Social and Governance (ESG) Principles at Cintas

As VP of Quality & Engineering, Mark’s responsibility is to manage all aspects of Cintas’ Quality, Reliability and Fleet Operations. His primary focus is on equipment, construction, production efficiency, environmental strategies, fleet optimization strategies and product quality. Mark graduated from Miami University in Oxford, OH and joined Cintas in 2000 as a Sales Representative at our Milford, OH facility. He went on to fulfill multiple roles ranging from Service Manager to the National Director of Facility Services. From 2014-2020, Mark was responsible for the build, development, and implementation of Cintas’ ERP conversion to SAP. In June of 2020, Mark was promoted to the Vice President of Quality and Engineering. Mark and his wife Kathy have been married for 27 years and have 3 kids: Drew is a Junior at Capital University in Columbus, OH where he plays LAX and Lily is a Junior at Lebanon High School where she plays Volleyball & Basketball.

Keynote IV: Tuesday, June 13, 2023, 12:20 – 1:00 pm

Wednesday, June 14, 2023

Dr. Gino Lim  
Fellow of IISE, SVP of IISE International Operations  
R. Larry and Gerlene (Gerri) R. Snider Endowed Chair  
Professor & Chair, Department of Industrial Engineering  
University of Houston – University Park  
Houston, Texas, USA

Gino Lim is a professor and R. Larry and Gerlene (Gerri) R. Snider Endowed Chair of the Department of Industrial Engineering at the University of Houston (UH). He is a fellow of the Institute of Industrial and Systems Engineers (IISE) and serves as an editorial board member for several scientific journals. He is currently a Board Member of the IISE Board of Trustees, the Senior Vice President of International Operations of IISE, and holds several other positions such as a member of the Council of Industrial Engineering and Department Heads (CIEADH) and a founding member of the IISE Fellows Council on International Ambassadors Committee. Previously, he served as a member of the Board of Directors of INFORMS, Co-Chair of INFORMS Subdivisions Council, Vice President of Chapters/Fora of INFORMS, Chair of INFORMS Chapters/Fora Committee, the program chair for the 2017 INFORMS annual conference, the program chair of 2012 ISERC Conference, to name a few. His research areas include mathematical optimization, computational algorithm design, Operations Research applications in community resilience, homeland security, power systems, healthcare delivery, and transportation. He has authored over 160 archival papers and delivered numerous invited talks for plenary, colloquia, seminars, and technical presentations at international conferences and universities. He received both his M.S. and Ph.D. degrees in industrial engineering from University of Wisconsin – Madison.
José Rivera
Chief Admin Quality Officer
MD Anderson Cancer Center,
Houston, Texas, United States

José Rivera joined MD Anderson as the Chief Administrative Quality Officer November 2020. José oversees the quality, safety, accreditation, regulatory and certifications, infection control, process improvement, clinical effectiveness, clinical operation informatics, emergency readiness, tumor registry, and code blue operations. José came to MD Anderson from Beaumont Health in Royal Oak Michigan, with deep knowledge and years of leadership experience in quality, safety, and accreditation programs. José served as Beaumont Hospital’s vice president for clinical operations which he was responsible for the organization’s strategy and hospital operations. Prior to Beaumont Health, José led inpatient and outpatient quality programs for Nebraska Medicine where he applied Lean principles to strengthen clinical documentation, improve mortality documentation, and commit to robustly monitoring quality and safety indicators. José holds black belt status in Lean Six Sigma methodology and has excelled in systems performance improvement efforts that have surpassed organizational targets. José earned his degree in industrial engineering and a master’s degree in business administration from University of Nebraska.

Rob Swearingen, PhD, PMP, CSSBB
Head of Strategic Sourcing and Supply Chain Management
Siemens GCI, Tomball, Texas, United States

Rob Swearingen is responsible for end-to-end global supply chain activities for the Siemens GCI business segment. He leads teams covering all supply chain and logistics functions to include strategic sourcing, material planning, operational purchasing, and in/outbound logistics. Rob brings the experience of a 25-year career in the US Army where he held leadership roles in aviation operations and maintenance, transportation and logistics, and general officer staff. While working toward his PhD, he spent four years consulting on process improvement projects in the private sector and teaching supply chain, lean six sigma and ERP courses at North Dakota State University and Central Washington University. Rob graduated from the North Dakota State University College of Business with a PhD in Transportation & Logistics in Dec 2019. His courses and research focused on change management in a supply chain context – the alignment of operations, organization, strategy, and systems. He holds certifications in project management from the Project Management Institute (PMI), a six-sigma black belt from the American Society for Quality (ASQ) and Business Process Integration from SAP. Rob and his wife Nakaly reside in Tomball, TX and have 3 daughters. He enjoys the outdoors as much as possible, volunteers in support of veteran’s charities and is the President of his HOA.

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

Dr. Luis Rabelo received the BS in Electro-Mechanical Engineer from the Technological University of Panama in 1983, an MS in Electrical Engineering from the Florida Institute of Technology in 1987 Master's and Doctorate in Engineering Management from the University of Missouri. He was a Postdoc at the University of Missouri in Nuclear Engineering. Dr. Rabelo received a dual MS in Systems and Management from the Massachusetts Institute of Technology. He has worked for the Advanced Technology Group (Goodrich) and Honeywell Laboratories. Dr. Rabelo was a NASA Fellow from 2002 to 2005, and a Project Manager at NASA from 2009 to 2011. He is currently Professor in the Industrial Engineering and Management Systems Department at UCF. He is also the Undergraduate Coordinator. He has written more than 300 articles and a book in Artificial Intelligence. He has been the principal advisor for 39 Master's students and 29 PhDs. He received the award for the Best Scientific Article of the Year 2004 from the Society of Automotive Engineers, received the distinction “ONE NASA” in 2006. He was the recipient of the Fulbright Distinction in 2008. In November 2008, he received the honor of the Technological University of Panama (UTP) of being the 2008 Distinguished Alumni. In 2011, he was the Heniac Award Winner in Education. In 2013 and 2018, he received the Forest R. McFarland Award from the Society of Automotive Engineering (SAE). Lately, he received the SAE Russell S. Springer Award for his article on the modeling of space operations systems in 2017.
Dr. Akladios is an accomplished researcher, a distinguished educator, and an effective trainer with specific knowledge concerning a wide variety of programs, including occupational safety and health in general and construction industries, ergonomics, and human factors. He served as PI or Co-PI to a number of grants and projects funded by governmental and private entities. His distinguished service includes serving as an ABET-Program Evaluator (PEV), Team Chair, Board of Delegates representing ASSP, Global Council, and a Commissioner. He is fluent in Arabic and English. He has provided consultation services in ergonomics and safety for a number of local oil companies including ExxonMobil, ConocoPhillips, BHP Billiton, Humantech, TransCanada, etc.

Keynote X: Thursday, June 15, 2023, 11:00 – 11:40 am

**Suresh Vaidyanathan**  
Chief Engineer & General Manager  
Refining Business Improvement  
Phillips 66  
Westchase, Houston, Texas

Suresh Vaidyanathan is chief engineer & general manager, Refining Business Improvement for Phillips 66. A chemical engineer, Suresh has more than 30 years of global experience in the oil and gas industry. Prior to assuming his current role in 2018, he served in a variety of positions for the company, including operations manager at Sweeny Refinery, refining technical services manager for Refining Business Improvement, West Coast strategy manager for Refining, technical manager at Trainer Refinery and optimization manager at Ponca City Refinery. He started his career at HPCL Refinery, India in 1991 (formerly Exxon-Caltex Refining), and later worked in the Fractionation industry with Koch Industries and Sulzer Chemtech in India, Europe and the U.S. Suresh holds a master's degree in chemical engineering from the Indian Institute of Technology (IIT), and an MBA from Southern Methodist University.

Keynote XI: Thursday, June 15, 2023, 11:40 – 12:20 pm

**Mr. Bruce Webb**  
Chief Pilot  
Director of Aviation Education and Community Outreach  
Airbus Helicopters, Inc.  
Prairie, Texas, USA

Bruce Webb is the Director of Aviation Education and Community Outreach for Airbus Helicopters, Inc. After 16 years, in July 2016 he stepped down as the Chief Pilot for Airbus Helicopters to pursue his current role. His 40 years as a helicopter pilot, and his experience as an accident investigator, has convinced him that the path to aviation safety is a better understanding of the human mind. In his new capacity Mr. Webb studies human behavior and cognition to build and deliver presentations which are both captivating and educational. His background includes owning/operating a Part 145 Repair Station, Part 137 Agricultural Aircraft Operation, and Part 135 Air Carrier Operation in the Chicago area. He also flew HAA (Helicopter AirAmbulance) for many years prior to joining Airbus (American Eurocopter in 1999). He regularly teaches aerodynamics and helicopter systems for TSI (Transportation Safety Institute) in Oklahoma City and is an FAA FAASTeam Representative in North Texas.

Keynote XII: Thursday, June 15, 2023, 12:20 – 1:00 pm

**Paul Perkins**  
President  
Amatrol, Inc.  
Jeffersonville, Indiana  
USA

Paul Perkins is president and co-founder of Amatrol, Inc., a Jeffersonville, Indiana based manufacturer of technical learning systems and online interactive multimedia software for colleges, industry and high schools. Perkins holds a B.S. Degree in Mechanical Engineering Summa Cum Laude from Georgia Institute of Technology, is the author of over 20 books on industrial controls and automation, and has designed numerous training systems for teaching engineering and technical skills. His community service activities include serving as Chair of the Indiana State Workforce Innovation Council, past Chair of the National Governors Association State Workforce Board Chairs Association, and board member of many other national, state and local organization.
Six Sigma Certification Workshop

Tuesday, June 13, 2023, 4:00 – 7:00 pm – Ballroom (Onsite)

Dr. Ahad Ali
Associate Professor and Director of Industrial Engineering Program
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA

Executive Director, IEOM Society International

Dr. Ahad Ali is an Associate Professor and Director of Industrial Engineering at the Lawrence Technological University, Michigan. Dr. Ali is the Director of Smart Manufacturing and Lean Systems Research Group. He earned B.S. in Mechanical Engineering from Khulna University of Engineering and Technology, Bangladesh, Masters in Systems and Engineering Management from Nanyang Technological University, Singapore and Ph.D. in Industrial Engineering from University of Wisconsin-Milwaukee. Dr. Ali is the Executive Director of IEOM Society and Conference Chair of the Sixth International Conference on Industrial Engineering and operations Management, Kuala Lumpur 2016. He advised six doctorate students in Doctor of Engineering in Manufacturing Systems. Dr. Ali has published journal and conference papers. He was past President of IIE Lean Division. Dr Ali has done research projects with Chrysler, Ford, DTE Energy, Delphi Automotive System, GE Medical Systems, Harley-Davidson Motor Company, International Truck and Engine Corporation (ITEC), National/Panasonic Electronics, and Rockwell Automation. His research interests include quality, reliability, six sigma, manufacturing simulation, optimization, scheduling, maintenance, e-manufacturing, and lean. He is a member of ASEE, IEEE, IEOM, INFORMS, and SME.

SCM Workshop: Supply Chain 4.0 - The Next-Generation Supply Chain Practices

June 15, 2023, 8:00 - 9:45 am - Ballroom (Onsite)

Mohammad Anwar Rahman, Ph.D.
Associate Professor, Manufacturing and Construction Management
Central Connecticut State University, New Britain, CT, USA

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 Baldridge 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.

Innovation and Entrepreneurship Workshop

June 15, 2023, Thursday, 4:00 – 6:00 pm – Ballroom (Onsite)

Join us for an exciting and interactive learning experience on how to make your dream a reality.

Professor Donald M. Reimer
President, The Small Business Strategy Group, Detroit, Michigan, USA
Director, Membership and Chapter Development, IEOM Society

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs’ Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Director of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs’ Organization Faculty Advisory Council and is a member of the American Society of Engineering Education. He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.
Panel Sessions

Women in Industry and Academia (WIIA) Panel
Tuesday, June 13, 2023, 8:00 – 9:45 am – Room 2 (Onsite)

Panel Chair

**Dr. Johanna Trujillo Díaz**
Titular-Il Professor at Business Administration
Support of Vice-Rectory for Research
Fundación Internacional De La Rioja (UNIR)
Bogotá, Colombia

Johanna Trujillo Díaz is in the Vice-Rectory for Research and is a Titular-Il-professor at Business Administration at Fundación Universitaria Internacional de la Rioja (UNIR-Colombia). She did postdoctoral in health modeling and analytics from the Universidad de Los Andes (Colombia) and Doctor in Strategic Planning and Technology Management from the Universidad Popular Autonoma del Estado de Puebla (Mexico). Johanna received Magister in Industrial Engineering from the Pontificia Universidad Javeriana (Colombia) and Industrial Engineer from the Universidad Catolica de Colombia. She has conducted research projects, and in that way, Johanna has published relevant books and articles with a great scientific contribution to the state-of-the-art. His research has focused on the Manufacturing, Logistics, Agriculture, and Health sectors applying techniques: statistics, simulation, optimization, multicriteria, data mining and business intelligence, process control, and decision making. Johanna has fifteen years of academic and research experience, as a research project director and an undergraduate and postgraduate teacher. On the other hand, his work experience is another ten years in positions such as Administrative and Financial Director, Logistics, and Supply Chain.

Panelists

**Panelists**

**Industry 4.0 Panel**
Tuesday, June 13, 2023, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair

**Dr. Hayder Zghair**
Assistant Professor of Industrial Engineering
Director of Industrial Engineering Development
College of Science and Engineering
Southern Arkansas University
Magnolia, Arkansas, USA

Dr. Hayder Zghair is an assistant professor of industrial engineering and the director of Industrial Engineering development in the College of Science and Engineering at Southern Arkansas University. He completed a B.S. and an M.S. from the University of Technology, where he majored in Industrial and Production Engineering. Dr. Zghair earned his second master's degree in Manufacturing Systems Engineering and Doctor's Degree in Manufacturing Systems Engineering from Lawrence Technological University, Michigan, USA. He has published journal and conference papers. His research interests include Flexible-Automated Manufacturing, Robotics, Human Factors and Ergonomics, Sustainability Engineering, Analytical Modeling & Simulation, and Optimization. Dr. Zghair continues to explore new and cutting edges areas for research and education in engineering disciplines and got recently had an extensive interest in industry 4.0 tech such as IIoT, smart sensors, and cloud computation and control. Dr. Zghair chairing and member of several committees at the department, college, and university levels. Dr. Zghir is the faculty advisor of SAE students chapter at SAU and IEOM. He is a professional member of ASEE, SAE, and IEOM.

Panelists

**Panelists**

**Panelist – I**

**Dr. Tom Jones**
Continuous Improvement Industrial Engineer
Department of Operational Excellence
Leonardo DRS
Melbourne, Florida, United States

Tom Jones, PhD in Industrial Engineering and is an Industrial Engineer with 9 years of industry experience. He has worked primarily in quality engineering roles and has experience in multiple industries. Tom currently works as a Continuous Improvement Industrial Engineer for Leonardo DRS, a tier 2 defense contractor. He works in the department of operational excellence and his current role focuses on improving current business processes. Dr. Jones earned both a Bachelor of Science and Master of Science from Wichita State University, both in Industrial Engineering, with specializations in Quality and Human Factors during his Master's studies. Dr. Jones’s PhD in Industrial Engineering with a research focus on Quality 4.0 from the University of Central Florida. Dr. Jones has made his career primarily at high growth companies where he has used his IE skills to develop standard practices from processes based on individual tribal knowledge. In his first role as a Quality Improvement Engineer at Inline Plastics he helped develop a true new product introduction process, as a Quality Engineer at Viega LLC his role focused on qualification of new production processes and equipment with the commissioning of a new factory, and currently at Leonardo DRS he works to develop business process standardization and compliance across different business units as the company grows through acquisition.
Panelist – II

Alper Senol
Professor- Supply Chain Management
Miami Dade College
Miami, Florida, United States

Alper Senol is an experienced Engineering Manager, Supply Chain Management Professor, and visionary founder of the Yunuak supply chain consulting firm. With 14+ years of experience in transportation, supply chain & logistics management, and manufacturing, he excels in Project Management, Lean Six Sigma, Operations Management, Quality Management, Continuous Improvement, and Industry 4.0. Alper is pursuing a Ph.D. in Industrial Engineering and Management Systems at the University of Central Florida, focusing on the “Impact of Industry 4.0 on Global Supply Chain Management.” He holds an M.S. in Engineering Management and Systems Engineering from Old Dominion University and a B.S. in Information Management Systems from Strayer University. Certified in Lean Supply Chain Management and Lean Six Sigma Green Belt, Alper brings extensive knowledge to his work.

With an accomplished background as an Industrial Engineer, Alper has successfully overseen and managed various aspects of production, quality, supply chain, and logistics operations. His broad skill set encompasses; need assessment, system upgrades, process flow and layout design, inventory management, performance metrics (KPIs), lean six sigma initiatives, production planning, and manpower optimization. Throughout his career, Alper has played a pivotal role in driving streamlined operations and establishing strategic partnerships with stakeholders for international supply chain projects. As the founder of the Yunuak supply chain consulting firm, Alper leads a dynamic team in delivering innovative and sustainable solutions in logistics management, warehouse optimization, and end-to-end supply chain management. With a focus on cutting-edge Industry 4.0 technologies, such as artificial intelligence, robotics, automation, and data analytics, Alper’s firm empowers organizations to embrace digital transformation and gain a competitive edge. Alper contributes as an advisory committee member for the Supply Chain Management board at Miami Dade College, and he played a pivotal role in establishing concentrations in Data Analytics, Procurement, and Project Management within the Supply Chain Management program, successfully obtaining state approval.

Panelist – III

Dr. Galia Novakova Nedeltcheva
Scientific Researcher, ICT & Digital Transformation
Polytechnical University of Milan, Italy

“Nowadays we see that Smart manufacturing (Manufacturing as a Service), Digital engineering & operations, Digital connectivity & sensors are the main fields where Industry 4.0 finds application, but still keeping human-centric processes.”

University lecturer and researcher with sound scientific experience and working at the interface of science, knowledge, and policy.

Engineering Management professional obtained her Doctor of Philosophy (Ph.D.) in Industrial and Manufacturing Engineering from the Polytechnic University of Turin, Italy. Also, Dr. Nedeltcheva holds two MSc degrees in Quality Management, and in Information Management Systems. She performed extended postdoc research in Germany, Italy, and the USA.

Skilled in Project Management, Operations and Service Management, Quality Management, Lean and Agile Methodologies, and Continuous Improvement.

MIT Certified Professional in Cloud and DevOps: Continuous Transformation.

About eight years of experience as an Asst, Prof. with Sofia University (Bulgaria), about 40 scientific publications in journals and conference proceedings, and a couple of academic awards.

Giving talks at various international scientific conferences, numerous times serving as a conference session chair, a reviewer for a number of scientific journals and conferences, as well as a project reviewer for the European Commission.

Research interest in Digital Manufacturing, Cloud-based Supply Chain Management, Security in the Supply Chain, and Performance Measurement. President of the IEOM Chapter in Bulgaria.

Currently, Dr. Galia Nedeltcheva is with the Polytechnical University of Milan, Italy.

Panelist – IV

Dr. Doga Demirel
Assistant Professor of Computer Science
Director of Virtual Reality, Interactive Simulation, and Biomedical (VRISB) Lab
Florida Polytechnic University, Lakeland, Florida, USA

Dr. Doga Demirel is an assistant professor of Computer Science and the Director of Virtual Reality, Interactive Simulation, and Biomedical (VRISB) Lab at Florida Polytechnic University. Before joining Florida Poly, He has worked in the areas of medical simulations for over 10 years teaching and research assistant at University of Central Arkansas, and University of Arkansas at Little Rock. Dr. Demirel had earned Ph.D. in Computer Science from University of Arkansas at Little Rock, 2018, M.S. in Applied Computing from University of Central Arkansas, 2015, and B.S. in Computer Science from University of Arkansas at Little Rock, 2013. Dr. Doga’s research interests include virtual reality, augmented reality, surgical simulators, and haptics.
Human Factors and Ergonomics Panel - Maintenance and Reliability  
Tuesday, June 13, 2023, 4:00 – 5:45 pm – Room 2 (Onsite)

Panel Chair

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.

Global Supply Chain Management and Logistics Panel  
Wednesday, June 14, 2023, 8:00 – 9:45 am – Room 2 (Onsite)

Panel Chair

Shahram Taj, Ph.D.  
Chair and Professor, Department of Data Science & Business Analytics  
Chair, Department of Computer Science  
Florida Polytechnic University, Lakeland, Florida, USA

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 from 2013 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 1990, 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.

Panelists

Panelist – I
Michael Ehsani (MBA, DBA)
Global Quality Director
Arcadis
Houston, Texas, USA

Michael Ehsani has over 30 years experience in Leadership, Quality Management, Process Improvement, Operational Excellence, and Global Supply Chain Management. He has collaborated with fortune 500 companies, in 33 countries, to strategize and deploy comprehensive forward looking business strategies, integrated management systems, and effective supply chain management programs. Michael is currently the Global Quality Director and a member of the Senior Leadership Group at Arcadis, the world’s leading company delivering sustainable design, engineering, and consultancy solutions for natural and built assets. Arcadis has over 36000 employees and operates in more than 70 countries worldwide. Michael is responsible for strategizing and deploying a comprehensive integrated management system covering hundreds of Arcadis offices worldwide.

Dr. Milad Talebzadehhosseini
Visiting Assistant Professor
Department of Data Science and Business Analytics
Florida Polytechnic University
Lakeland, Florida, USA

Dr. Milad Talebzadehhosseini joined Florida Polytechnic University as a visiting assistant professor in the Department of Data Science and Business Analytics in August 2022. Before joining Florida Poly, he was a post-doctoral scholar at the University of Central Florida. Talebzadehhosseini received his Ph.D. in industrial engineering from the University of Central Florida in December 2021. His research mainly focuses on the applications of network science and data science techniques in the areas of sustainability, supply chain management, economic complexity, economic development, and green economic development.

Dr. Mohamad Nayebpour
Visiting Assistant Professor
Marilyn Davies College of Business
University of Houston–Downtown (UHD)
320 N Main St, Houston, TX 77002, USA

Dr. Nayebpour is Management consultant and educator with over 35 years of experience in the industry and higher education. He is currently a visiting Assistant Professor at Marilyn Davies College of Business at the University of Houston-Downtown. He earned B.S. degree in Petroleum Engineering, M.S. in Engineering Management and Ph.D in Applied Statistics. He has extensive experience as an industry consultant in areas of quality management, operations management, statistical process control, data analysis, forecasting, financial modeling, optimization techniques, sampling methodology, and project management. He is a certified Quality Engineer by ASQ and has published scholarly work in Technometrics, Journal of Quality Technology, and Journal of Business Ethics to name a few.

Manohar S. Madan, PhD
Professor, ITSCM Department
University of Wisconsin-Whitewater

Manohar Madan is a Professor in the Information Technology and Supply Chain Management Department in the College of Business and Economics at the University of Wisconsin-Whitewater. He has a Ph.D. in Operations Management from the University of Tennessee, Knoxville, Tennessee. He has a Master's degree in Engr. Mgmt. from the University of Detroit, Detroit, Michigan. His teaching and research interests are in the areas of Operations Management, Supply Chain Management and Project Management. Manohar's research has been published in many professional journals such as the Journal of Operations Management, IIE Transactions, OMEGA – The Journal of Management Science, International Journal of Operations and Production Management, International Journal of Production Research, International Journal of Production Economics and the Journal of Operational Research Society. He is certified as CPM by APICS (now ASCM).

Data Analytics Panel
Wednesday, June 14, 2023, 2:00 – 9:45 am – Room 2 (Onsite)

Panel Chair
Panelist – I

Assaf Gottlieb, PhD

Assistant Professor

UTHealth School of Biomedical Informatics (SBMI)

Houston Texas Medical Center, Houston, TX 77030

Assaf Gottlieb, Ph.D., joined the UTHealth School of Biomedical Informatics (SBMI) in January 2017 as an assistant professor and one of the core faculty members of the Center for Precision Health. Dr. Gottlieb arrived to SBMI from IBM Research where he served as a research associate at the Machine Learning for Healthcare and Life Science group in Haifa labs. Prior to his position with IBM, Dr. Gottlieb was a postdoctoral fellow at both Stanford University and Tel-Aviv University. He has degrees in Physics and Computer Science and has also worked in software and algorithmic development in various software companies. Our lab is interested in precision medicine with special emphasis on pharmacogenomics. In order to address the challenges of precision medicine, we employ an integrative computational approach, combining multiple types of data and applying methodologies from systems biology, systems medicine, machine learning and causal inference domains. Our primary interest is to improve health outcomes by integrating diverse types of data, including genomic/biological data, data from fitness trackers and clinical data from electronic health records data. Some of our on-going projects include predicting drug response in cancer therapy, early predictions of Alzheimer’s Disease and determining HIV risk.

Panelist – II

Dr. Meng Li

Associate Professor, Bauer Fellow

SCM PhD Coordinator, C.T. Bauer College of Business

University of Houston, Houston, Texas, USA

Dr. Meng Li is the director of Bauer Human-Centered AI Lab, an Associate Professor, and Bauer Fellow at C.T. Bauer College of Business, University of Houston. My recent research interests focus on human-centered AI. His research has appeared in journals such as Management Science, Manufacturing and Service Operations Management, Operations Research, Production and Operations Management, Journal of operations Management, Strategic Management Journal, and Nature Sustainability. Dr. Li is a Senior Editor for Production and Operations Management, and a Department Editor for Decision Sciences Journal. His work has been funded by companies such as Shell and HPE. He received Ph.D. in Operations Management, The University of Texas at Dallas, 2013. Dr. Li received many academic honors and awards including Lucile and Leroy Melcher Excellence in Research Award, 2023, Finalist of the POMS College of Service Operations Management (CSOM) Best Student Paper, 2023, Shell Sustainability Research Grant ($100,000), 2022, Rutgers Research Council Award, Rutgers University, 2020 and Second Place of IFIP Paper Competition, 2019.

Panelist – III

Dr. Rei Sanchez-Arias

Assistant Professor of Data Science

Assistant Chair of the Department of Data Science and Business Analytics

Florida Polytechnic University, Lakeland, Florida, USA

Dr. Sanchez-Arias joined Florida Polytechnic University in Fall 2018 and is currently an Assistant Professor of Data Science and serves as the Assistant Chair of the Department of Data Science and Business Analytics. Reinaldo (Rei) Sanchez Arias earned his Bachelor of Science degree in Mathematics from Universidad del Valle in Cali, Colombia. In Fall 2008 he started his doctoral studies in the Computational Science Program at The University of Texas at El Paso (UTEP). During his years at UTEP he was involved in research projects for the Army High Performance Computing Research Center (AHPCRC) in collaboration with a group at Stanford University. He interned at Repsol Oil Company USA during the summer of 2011, where he worked with the Research and Innovation Geophysics Department. He obtained a Ph.D. degree in Computational Science from UTEP in the spring of 2013, working on sparse representation methods for classification problems and dimensionality reduction. He completed a postdoctoral researcher appointment for the AHPCRC working in reduced order models for underbody-blast simulations and compression techniques. From 2014 to 2016, Dr. Sanchez-Arias was part of the Applied Mathematics Department at Wentworth Institute of Technology (WIT) in Boston, MA where he taught courses for Applied Mathematics and Engineering students, nominated and served as the Faculty Advisor for the Society of Industrial and Applied Mathematics (SIAM) Student Chapter, coordinated linear algebra and capstone courses, and helped develop different elective courses in applied mathematics. In Fall 2016, Dr. Sanchez-Arias joined St Thomas University, in Miami, FL, where he served as the Program Director for the MS in Big Data Analytics in
In Fall 2018, he joined the Department of Data Science and Business Analytics (DSBA) at Florida Poly in Lakeland, FL where he leads multiple data science research projects, and teaches courses for the BS in Data Science, BS in Business Analytics, MS in Data Science, and MS in Engineering Management programs. Dr. Sanchez-Arias was the recipient of Florida Poly’s Excellence in Teaching Ablaze Award in 2020. He was invited as scientific session speaker in the area of statistics and data analysis for the LatMath 2022 conference sponsored by the Institute for Pure and Applied Mathematics (IPAM) at UCLA, and was also an invited speaker for the INFORMS Teaching Effectiveness Colloquium in 2021, which featured speakers from business and engineering schools who address different aspects of incorporating and assessing effective teaching techniques in OR/MS/Analytics undergraduate or graduate curriculum.

His general areas of interest include data mining and machine learning, computational linear algebra and optimization, and data science education. His work has been presented at international and national conference meetings including SIAM annual meetings, the International Conference for High Performance Computing, the IEEE International Conference of the Engineering in Medicine and Biology Society, the IEEE International Conference in Machine Learning and Applications, and INFORMS annual meeting. Dr. Sanchez-Arias is a member of SIAM, IEEE, IEOM, ACM and INFORMS.

Panelist – IV

**Dr. Hrayer Aprahamian**  
Assistant Professor, Industrial & Systems Engineering  
Wm Michael Barnes '64 Department of Industrial & Systems Engineering  
Texas A&M University, College Station, Texas, USA

Dr. Hrayer Aprahamian is an Assistant Professor at the Wm. Michael Barnes Department of Industrial and Systems Engineering at Texas A&M University. He received his Ph.D. in Industrial and Systems Engineering from Virginia Tech in 2018. Dr. Aprahamian’s research interests lie at the interplay between combinatorial/discrete and continuous optimization, with particular interest in applications related to healthcare systems and public policy decision-making. His research papers have appeared in journals such as Management Science, INFORMS Journal on Computing, Stochastic Systems, and ISE Transactions. He was awarded the 2022 Pierskalla Best Paper Award, was a finalist for the 2021 FOR.symp Paper competition, received the ISE Transactions Award in 2020, the Pritsker Doctoral Dissertation Award in 2019, the Paul E. Torgersen Research Excellence Award in 2018, and was runner-up for the 2017 Pierskalla Best Paper Award.

### Using Assessment to Improve Student Learning and Curriculum – Panel

**Panel Chair**  
**Professor Abu Masud, Ph.D., P.E.**  
Professor Emeritus, Department of Industrial and Manufacturing Engineering  
Wichita State University, Kansas, USA

Dr. Abu Masud is a professor of industrial and manufacturing engineering at Wichita State University. He has been named the Boeing Global Engineering Professor at Wichita State University. In this new post, Dr. Masud is expected to advance the College of Engineering’s strategic alliances for global enrichment and experiential learning of students as well as international research collaborations and partnerships. He received Duane and Velma Wallace Outstanding Educator Award from WSU College of Engineering. Previously he has held various positions at Wichita State including associate dean, graduate school (2008-2013), coordinator, college ABET affairs (2006-2008), associate dean, college of engineering (2004-2005), chair, industrial and manufacturing engineering department (1994-2004) and graduate coordinator of IME (1991-94, 1996-98, 2001-2004). Dr. Masud has engaged with various companies and governmental research centers including NASA Langley Research Center, VA, NASA/ASEE Summer Faculty Fellow (1991 and 1992), Boeing, Consulting Analyst, and Kuwait Institute for Scientific Research. He is member of Accreditation Review Council (2011-2014). Dr. Masud published book, book chapters, and numerous journal and conference papers. He is registered Professional Engineer at Kansas State. Dr. Masud is an IIE fellow. He received Ph.D. and M.S. in Industrial Engineering from Kansas State University, and B.S. in Mechanical Engineering from Bangladesh University of Engineering & Technology.

Panelist – I

**Dr. Adefeji Badiru**  
Dean, Graduate School of Engineering and Management  
Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA

Deji Badiru is the Dean and senior academic officer for the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT). He is responsible for planning, directing, and controlling all operations related to granting doctoral and master’s degrees, professional continuing cyber education, and research and development programs. In his post-high-school days, Deji worked as a graphic artist for children television programs, as a writer and columnist for community newspapers, and as an accounts clerk. These are practical skills that he frequently uses, even today, in his administrative and professional duties.

Deji Badiru was previously Professor and Head of Systems Engineering and Management at AFIT, Professor and Department Head of Industrial & Information Engineering at the University of Tennessee in Knoxville, and Professor of Industrial Engineering and Dean of University College at the University of Oklahoma, Norman. He is a registered professional engineer (PE), a certified Project Management Professional (PMP), a Fellow of the Institute of Industrial Engineers, and a Fellow of the Nigerian Academy of Engineering. He holds BS in Industrial Engineering, MS in Mathematics, and MS in Industrial Engineering from Tennessee Technological University, and Ph.D. in Industrial Engineering.
Deji Badiru has won several awards for his teaching, research, and professional accomplishments. He is the recipient of the 2009 Dayton Affiliate Society Council Award for Outstanding Scientists and Engineers in the Education category with a commendation from the 128th Senate of Ohio. He also won 2010 IIE Joint Publishers Book-of-the-Year Award from the Institute of Industrial Engineers. He also won 2010 ASEE John Imhoff Award for his global contributions to Industrial Engineering Education, the 2011 Federal Employee of the Year Award in the Managerial Category from the International Public Management Association, Wright Patterson Air Force Base, the 2012 Distinguished Engineering Alum Award from the University of Central Florida, and the 2012 Medallion Award from the Institute of Industrial Engineers for his global contributions in the advancement of the profession. In February 2013, he was selected as a finalist for the Jefferson Science Fellows (JSF) program by the US National Academy of Sciences and the US Department of State. Prof. Badiru was the leader of the AFIT team that won the 2013 Air Force Organizational Excellence Award for Air University C3 (Cost Conscious Culture). His most recent award is the 2015 National Public Service Award at the overall US Air Force level.

Deji Badiru has served as a consultant to several organizations around the world including Russia, Mexico, Taiwan, Nigeria, Ghana, and Canada. He has conducted customized training workshops for numerous organizations including Sony, AT&T, Seagate Technology, U.S. Air Force, Oklahoma Gas & Electric, Oklahoma Asphalt Pavement Association, Hitachi, Nigeria National Petroleum Corporation, and ExxonMobil. He holds a leadership certificate from the University Tennessee Leadership Institute. He has served as a Technical Project Reviewer, curriculum reviewer, and proposal reviewer for several organizations including The Third-World Network of Scientific Organizations, Italy, National Science Foundation, National Research Council, and the American Council on Education. He is on the editorial and review boards of several technical journals and book publishers. Deji has also served as an Industrial Development Consultant to the United Nations Development Program. He is also a program evaluator for ABET, the international engineering and technology accreditation body. In 2011, Prof. Badiru led a research team to develop analytical models for Systems Engineering Research Efficiency (SEER) for the Air Force acquisitions integration office at the Pentagon. He has led a multi-year composite manufacturing collaborative research between the Air Force Institute of Technology and Wyle Aerospace Group.

Deji Badiru has diverse areas of avocation. His professional accomplishments are coupled with his passion for writing about everyday events and interpersonal issues, especially those dealing with social responsibility. Outside of the academic realm, he writes motivational poems, editorials, and newspaper commentaries; as well as engaging in paintings and crafts. As a contribution to sparking the interest of kids in science and engineering, Deji runs the Physics of Soccer website (www.physicsofsoccer.com). He is the founder of the Association of Military Industrial Engineers (AMIE). He also runs ABICS Publications, through which he publishes non-technical guide books for home, work, and leisure. A prolific researcher and author, Deji espouses the spirit of sharing knowledge freely and widely, which is the reason he offers self-published guide books to make his publications affordable and accessible to the general public.

Education
PhD, Industrial Engineering, University of Central Florida
MS, Mathematics, Tennessee Technological University
BS, MS, Industrial Engineering, Tennessee Tech University

Panelist – II

Professor Hamid Parsaei, Ph.D., PE
Fellow, IIE, ASEE, SME, IEOM
Professor, Department of Industrial and Systems Engineering
Director, College of Engineering Accreditation and Assessment
Texas A&M University
College Station, Texas, USA
IEOM President, 2021-2023; IEOM Vice President, 2019-2021

Dr. Hamid R. Parsaei is an internationally recognized leader in the field of manufacturing automation, leadership, engineering education, additive manufacturing, economic and financial decision making, and project management with more than three decades of experience in academia. He is awarded as a fellow IIE, ASEE, SME and IEOM.

Dr. Parsaei’s leadership experience and accomplishments include serving as Professor and Associate Dean for Academic Affairs at Texas A&M University at Qatar (TAMUQ.) He also served as the Director of Outreach and Accreditation and the Interim Chair of the Mechanical Engineering at TAMUQ while holding the rank of Professor in the Department of Industrial and Systems Engineering at Texas A&M University in College Station, Texas. Prior to joining Texas A&M University, Dr. Parsaei served as Professor and Chair of the Department of Industrial Engineering at University of Houston for 10 years and Director of Graduate Studies and Graduate Advisor for five years. He also served as Director of the Texas Manufacturing Assistance Center’s Gulf Coast Region from March 2001 to September 2005.

Dr. Parsaei is highly regarded worldwide for his scholarship. He served as Area Editor, Methodology, and as an editorial board of The Engineering Economist from June 1990 until January 1995, and he was editor in chief of three international refereed archival journals. He currently serves as a member of the editorial boards and associate editor to over fifteen peer-reviewed journals. He has been guest editor for several special issues of peer-reviewed archival journals, and has served as series editor to nine book series published by Wiley and Sons, CRC Press, Taylor and Francis, and several other publishing houses. His newest journal, Engineering Education Letters is a clear testament to Dr. Parsaei’s dedication to engineering education.

Dr. Parsaei has been principal and co-principal investigator on projects funded by NSF, Qatar Foundation, the US Department of Homeland Security, Texas Department of Transportation, Houston Transtar, the National Institute of Standards and Technology and the National Institute of Safety and Health, among others, with total funding in excess of $24 million. He has authored or co-authored 26 archival books and over 280 refereed publications that appear in archival journals and conference proceedings.

He has received several prestigious recognitions from IIE including, the Wellington Award (1993) from the Engineering Economy Division of the Institute for his original contributions to the field of engineering economics, Award of Merit in recognition of his service to the Engineering Economy.
Dr. Parsaei received his M.S. and Ph.D. degrees in industrial engineering from Western Michigan University and the University of Texas at Arlington, respectively. He is a registered professional engineer in the State of Texas and an ABET Engineering Accreditation Commissioner and Program Evaluator.

Lean Six Sigma Panel

Thursday, June 15, 2023, 8:00 – 9:45 am – Room 2 (Onsite)

Panel Chair

Dr. Jamison Kovach
PMI Houston Endowed Professor in Project Management
University of Houston, Texas, USA

Dr. Kovach is the PMI Houston Endowed Professor in Project Management at the University of Houston. She received her Ph.D. in Industrial Engineering from Clemson University. Her industrial experience includes more than five years as a product and process improvement engineer in the U.S. textile industry. Her current research investigates the use of methods for product and process innovation, expanding the use of these methods, and developing new improvement approaches in a wide range of industries/fields. In recognition of her work, Dr. Kovach was awarded the 2010 ASQ (formerly the American Society for Quality) Feigenbaum Medal. She is an Academician in the International Academy for Quality and an ASQ Fellow. Dr. Kovach currently serves as the Editor for Lean & Six Sigma Review, a quarterly ASQ publication, and she received the ASQ Six Sigma Forum Award for the Advancement of Six Sigma in 2019.

Panelists

Panelist – I

Caitlin McVey MBA, RN, CPHQ, CLSSBB
Associate Vice President
Memorial Hermann Institute for Nursing Excellence
Houston, Texas

Caitlin McVey is the Associate Vice President of the Memorial Hermann Institute for Nursing Excellence. Among her professional assets are a strong clinical background in critical care nursing, a record of improving quality while controlling costs, and a focus on effective relationships across the healthcare community. She is a Certified Professional in Healthcare Quality and Certified Six Sigma Black Belt. Caitlin is currently enrolled as a PhD student at UT Cizik School of Nursing focusing on using technology and innovative models of care to advance nursing practice with improved clinical and operational outcomes.

Panelist – II

Megan Moore, MBA, CMQ/OE, CSQP, CLSSGB
Director of Quality
Ryerson, Sugarland, Texas

Megan Moore is the Director of Quality for Ryerson, a steel distributor and fabricator. In her almost 20 years of industry experience her background covers everything from sales to operations, LSS, and quality, leading her to become a manufacturing senior leader. In her current role, Megan is responsible for directing the strategic advancement of the overall quality program while simultaneously displaying quality as a competitive advantage. She provides leadership and expertise to ensure the development of people, processes, and products to continuously improve the internal and external customer experience. She has worked on numerous waste reduction and operational efficiency projects during her time at Ryerson. Some of these projects include barcode scanning, location startups and shutdowns, quality program certifications and transitions, systems development, integration, and roll-out, standardization programs, metric improvements, and performance improvement initiatives. Megan has a passion for problem solving and applies this passion to continuous improvement, best practice identification, project management, process standardization, teaching, mentoring, and learning. She is self-motivated and results driven. She is an advocate for advancing the careers of those around her in the metals industry and is an active mentor and sponsor within her company. Megan has an undergraduate degree in Industrial Distribution from Texas A&M University and an MBA from the University of Massachusetts. As a firm believer in continuous learning and growth she is also a Certified Manager of Quality / Organizational Excellence, Certified Supplier Quality Professional, Certified Lean Six Sigma Green Belt, Certified ISO 9001:2015 Internal Auditor, and IATF 16949 Auditor.

Panelist – III
AJ Harzke, DrPH, MPH, MDiv, LSSBB
Assistant Professor, School of Public & Population Health
Manager, Process Improvement, Correctional Managed Care
University of Texas Medical Branch, Houston, Texas

Dr. AJ Harzke has worked as public health practitioner, researcher, and statistics consultant in correctional healthcare settings for more than 20 years. She received her doctorate from the University of Texas School of Public Health (Houston, Texas; 2007). From 2008 to the present, she has served dual roles as an Assistant Professor at the University of Texas School of Public and Population Health and a Senior Biostatistician/Process Improvement Manager in Correctional Managed Care (CMC), she conducts research as a principal investigator and collaborator, provides statistical consultation for students and post-doctoral residents and fellows conducting correctional healthcare research, and co-leads and manages Lean Six Sigma (LSS) performance improvement initiatives in CMC. Since 2014, she has led, facilitated, or supported more than 60 LSS health clinic-based improvement projects, including several Green Belt Certification projects through a collaboration with the University of Houston School of Technology.

Panelist – IV

Idris Olakunmi Yusuf, Msc, PMP
IT Professional & Graduate Research Fellow
Texas Southern University, Houston, Texas

Idris Yusuf is an IT professional and a certified project manager, PMP. He has over a decade of experience across many industries – software development, banking, consulting, and telecoms. He has two undergraduate degrees in Computer Science and Economics from Yaba College of Technology and the University of Ibadan Nigeria respectively. He also bagged an MSc (Info. Sys. Mgmt) with distinction from the University of Roehampton London. He has many industry-leading certifications, like ITIL, OCP, Oracle Certified Expert, OCE, and others to his credit. He is currently studying for another MSc in Computer Science at Texas Southern University with a research interest in Artificial Intelligence, Data Analytics, and Federated Learning. Idris is an ex-IBM and has worked for other companies like International Tumkey Systems, ITS, Jaiz Bank PLC, Airtel, Ernst & Young Nigeria, NTEL, and JKK companies among others where he managed large enterprise databases, and middleware solutions, and performed several other roles including IT operations lead. He is a co-founder of a number of growing IT firms in Nigeria – Gritty Minds Concepts Limited and Paysmosmo.com. To his credit, he has acted in various capacities in many transformational projects in the technology industry, working with peers across the globe to deliver successfully with excellent voice of customer feedback. He is an LSS enthusiast, an advocate of process improvements with a strong background in technology operations and management. He is a mentor to many budding IT associates and others through many initiatives which include “Empowerment thru Tech” training and food-for-the-poor. He also spends part of his free time visiting TDCJ (Texas Dept and Criminal Justice) correctional centers motivating and inspiring inmates. His hobbies include reading, traveling, and swimming.

Diversity and Inclusion Panel sponsored by Ford Motor Company
Thursday, June 15, 2023, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair

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

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs’ Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs’ Organization Faculty Advisory Council and is a member of the American Society of Engineering Education. He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.

Panel Speaker I
Tanya Hill
Chief Executive Officer & Founder
ForeverFresh, Detroit, Michigan, USA

Tanya Hill is the creator and founder of ForeverFresh- a line of disposable undergarments for adults and a children’s line under the brand name ToddiFresh. The products are sold through national distributors across the United States. In addition to ForeverFresh, Hill is also a principal in AP United, a Joint Venture partnership with Paradies Lagardere at Detroit Metropolitan Airport. The venture owns and operates multiple local and national brands in both airport terminals that include The Economist, Cat Cora Taproom, Air Margaritaville, Chick-fil-A, PF Chang’s, and soon-to-open Starbucks. Hill is president emeritus of the National Association of Women Business Owners Greater Detroit Chapter (NAWBO GDC) and is a board member of its foundation, NAWBO Excel. She served on NAWBO’s national board for five years (2018—2022). Hill serves on several other boards: the Detroit Children’s Choir, First Tee Greater Detroit (Board President), Oakland Schools Education Foundation, the Warriors Trust Fund, and is the board Chair of The Heat and Warmth Fund (Board President) and the Detroit Regional Chamber of Commerce.

Hill attended the University of Detroit. She is a graduate of the Minority Business Executive Program at Amos Tuck School, Dartmouth College, and Leadership Detroit Class XXII. She has received numerous awards and recognition for her entrepreneurial spirit and accomplishments. One she is especially proud of is the prestigious European Disposable and Nonwoven Association award in Geneva Switzerland. Hill is passionate about helping others reach their potential, be it mentoring, being a connector, or advocate. She firmly believes that whatever you aspire to do in life is attainable with faith, perseverance, and the willingness to continue to learn – never being afraid to think outside the box. Hill lives life passionately with two credos-“Lift as you climb” and “Live to give”. A sought-after motivational speaker, Hill freely uses her knowledge and life lessons to inspire and mentor those around her.

Panel Speaker II

Dr. Devinder Kumar Banwet FIE
Vice Chancellor Founding Retd
University of Engineering & Management, Kolkata India
Professor Emeritus, DMS, IIT Delhi (India)

Prof. Devinder Kumar Banwet is Vice Chancellor Founding Retd. of University of Engineering & Management, Kolkata India. He is an Emeritus Professor of DMS IIT Delhi in the area of Operations & Supply Chain Management, Industrial Systems Engineering, Infrastructure Project Systems Management, TQM, DSS, Operations Research Applications, Prof Banwet is a graduate Mechanical Engineer, with Master of Industrial Engineering and a PhD (Industrial Engg/Production Management from IIT Delhi. Previously he served as a Vice Chancellor of the University of Engineering and Management at Kolkata. He has made significant contributions in publications related to Operations Management. His areas of research interest include Operations Management, Supply Chain and Logistics, Services Management, Project Management, IT-enabled DSS, Industrial Systems Engineering, Total Quality Management, Manufacturing Strategy, Technology Management, Materials Inventory Management, Facilities Planning, Operations Research Systems Modelling, Telecom Systems and Entrepreneurship Management. Prof Banwet has more than 40 years of academic teaching, research and administrative experience Prof Banwet has guided 35 + PhD projects., has many research publications in reputed journals in India and abroad. Has had prestigious assignments at Kuwait Institute for Scientific Research, University of Sorbonne at Paris, Asian Institute of Technology Bangkok; Awarded Best Engineer Award IE, India, PMI Distinguished Researcher Award, IEMO Award, Life Time Achievement Award of POMS India, ISTD India,. President of professional Societies Decision Science Institute of USA India Chapter,. Prof Banwet is on the Governing Board of many Professional Institutes of Technology, and Management, and usually Chairman of many NBA Nat Board of Accreditation team expert visits.

Panel Speaker III

Lydia Gutierrez
President, Hacienda Mexican Foods
Detroit, Michigan

Lydia Gutierrez serves as President and CEO of Hacienda Mexican Foods a manufacturer of Tortillas and tortilla chips located in Detroit, Michigan. HMF is a multimillion-dollar company co-founded by Lydia and her late husband in 1990. As President, Lydia is responsible for running all facets of her business. She has a proven track record with more than 30 years of experience in the food business. Over the years she has grown her manufacturing company from a two-person operation to employing more than 70 people. Lydia is an entrepreneur, she understands the food industry and the importance of compliance, supply chain operations, including, manufacturing, research and development, procurement, distribution, planning, transportation, inventory management, quality and more importantly the production floor. She has been at the forefront of Hispanic woman in manufacturing and received a lifetime achievement award from Michigan Food & Beverage Association and inducted to the Hall of Fame for the Tortilla Industry Association in 2020. She has served as the Board Chair to many Associations and numerous Executive Boards including, New Economy Initiative, Tortilla Industry Association, Food Policy Council Stoppers, Detroit Economic Growth Corporation, Henry Ford Health Systems, New Detroit, Child’s Hope, Academy of America School, Latino Family Services and Co-Chaired the “Woman In-Action” conference sponsored by the Society of Hispanic Professional Engineers. Lydia attended Lee University and is the daughter of immigrant parents.

Global Engineering Education Forum – Panel
Thursday, June 15, 2023, 4:00 – 5:45 pm – Room 2 (Onsite)
Panel Speaker I

Dr. Adedeji Badiru
Dean
Graduate School of Engineering and Management
Air Force Institute of Technology
Wright-Patterson AFB
Ohio, USA

Panel Speaker II

Dr. Abu Masud, P.E.
Emeritus Professor
Department of Industrial and Manufacturing Engineering
Wichita State University
Kansas, USA

Panel Speaker III

Paul Perkins
President
Amatrol, Inc.
Jeffersonville, Indiana
USA

Paul Perkins is president and co-founder of Amatrol, Inc., a Jeffersonville, Indiana based manufacturer of technical learning systems and online interactive multimedia software for colleges, industry and high schools. Perkins holds a B.S. Degree in Mechanical Engineering Summa Cum Laude from Georgia Institute of Technology, is the author of over 20 books on industrial controls and automation, and has designed numerous training systems for teaching engineering and technical skills. His community service activities include serving as Chair of the Indiana State past Chair of the National Governors Association State Workforce Board Chairs Association, and board member of local organization.

Panel Speaker IV

Dr. Christopher Cox, P.E.
Faculty, Construction Management, College of Engineering and Technology
Western Carolina University, Cullowhee, North Carolina, USA

Christopher Cox, Ph.D., P.E., is currently with the Construction Management in the College of Engineering and Technology at Western Carolina University in Cullowhee North Carolina, USA. Prior to joining the faculty of the Kimmel School Dr. Cox spent 38 years in the energy industry. During his career he held a variety of roles in engineering, corporate planning and strategy, mergers and acquisitions, production operations, and project management. He has lived in the Middle East (United Arab Emirates, Qatar and Kuwait), North Africa (Egypt and Tunisia), Australia, and several US locations (Alaska, Illinois, and Texas). In addition to these residential locations, he worked in many other countries. Dr. Cox has a B.S. in Chemical Engineering from Tulane University, M.S. in Petroleum Engineering from the University of Houston, an MBA from Alaska Pacific University, and Ph.D. in Civil Engineering from Texas A&M University. He is a licensed Professional Engineer.
Professor Hamid Parsaei, Ph.D., PE  
Fellow, IIE, ASE, SME, IEOM  
Professor, Department of Industrial and Systems Engineering  
Director, College of Engineering Accreditation and Assessment  
Texas A&M University  
College Station, Texas, USA  
IEOM President, 2021-2023; IEOM Vice President, 2019-2021

Submissions Received from Countries and Territories

| 11. India | 19. Pakistan | 27. South Korea | 35. Vietnam |  |
| 12. Indonesia | 20. Peru | 28. Spain |  |  |
| 13. Italy | 21. Philippines | 29. Taiwan |  |  |

14th International Conference on Industrial Engineering and Operations Management  
February 12-14, 2024, Dubai, United Arab Emirates (UAE)  
Venue: Hyatt Regency Dubai  
Host: Khalifa University, Abu Dhabi  
http://ieomsociety.org/dubai2024/  

Conference Chair:  
Dr. Mohammed Omar  
Professor and Chair, Department of Industrial and Systems Engineering  
Khalifa University, Abu Dhabi, UAE
Conference Chair
Dr. Satish Bukkapatram
Rockwell International Professor and
Director, TEES Institute for Manufacturing Systems
Texas Engineering Experiment Station
College Station, Texas, USA

Conference Co-Chairs
Dr. Ahad Ali
Associate Professor
Director of Industrial Engineering Program
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University
Southfield, Michigan, USA

Dr. Gino Lim
Professor & Chair
R. Larry and Geriene (Geri) R. Snider Endowed Chair
Department of Industrial Engineering
University of Houston
Texas, USA

Dr. Hamid R. Parsaei
Professor of Industrial & Systems Engineering
The Wm Michael Barnes ’54 Department of Industrial & Systems Engineering
Affiliated Professor, Multidisciplinary Engineering
Director, College of Engineering Accreditation and Assessment
Texas A&M University, College Station
Texas, USA

Industry Chair
Eric Ayaneegui, CPMM, CRL
Director Operations Engineering
Cintas Corporation
Houston, Texas, USA

Program Chair
Professor Don Reimer
Director of Membership and Chapter Development
IEOM Society

Panel Chairs
Women in Industry and Academia (WIA) Panel
Dr. Johanna Trujillo-Diaz
Titular-II Professor at Business Administration
Fundación Internacional De La Rioja (UNIR)
Bogotá, Colombia

Industry 4.0 Panel Chair
Dr. Hayder Zghair
Assistant Professor of Industrial Engineering
Director of Industrial Engineering Development
College of Science and Engineering
Southern Arkansas University, Magnolia, Arkansas, USA

Human Factors and Ergonomics – Maintenance and Reliability Panel Chair
Eric Ayaneegui, Cintas Corporation

Global Supply Chain Management and Logistics Panel Chair
Dr. Shahram Taj
Chair and Professor, Department of Data Science & Business Analytics and
Chair, Department of Computer Science
Florida Polytechnic University, Lakeland, Florida, USA

Data Analytics Panel Chair
Dr. Ying Lin
Assistant Professor, Industrial Engineering Department
Director, SmartHealth & Intelligent Engineering Systems (SHINES) Lab
University of Houston, Houston, Texas

Using Assessment to Improve Student Learning and Curriculum – Panel Chair
Dr. Abu Masud

Professor Emeritus, Department of Industrial and Manufacturing Engineering
Wichita State University, Kansas, USA

Lean Six Sigma Panel Chair
Dr. Jamison Kovach
PMI Houston Endowed Professor in Project Management
University of Houston, Texas, USA

Diversity and Inclusion Panel sponsored by Ford Motor Company Panel Chair
Shelia Harden
CEO, GSHA Quality Services, Ann Arbor, Michigan, USA

Global Engineering Education Forum – Panel Chair
Dr. Adeleesi Badiru
Dean, Graduate School of Engineering and Management
Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA

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Andy Pandian, Saginaw Valley State University, Saginaw Valley, Michigan
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CJ Chung, Lawrence Tech
Daniel M. Ferguson, Purdue University, West Lafayette, Indiana
David Giemes-Castorena, Research Department, Tecnológico de Monterrey
Daw Averfalli, Lawrence Technological University, Michigan, USA
Debashis Mitra, University of New Brunswick, Fredericton, Canada
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Doga Demirel, Florida Polytechnic University, Florida, USA
Ehsan Teymourian, Rutgers University, USA
Elizabeth O’Neill, SUNY Buffalo State College, Buffalo, NY, USA
Eui Park, North Carolina A&T State University, USA
Farooq Sheikh, State University of New York (SUNY), Geneseo, USA
Farouq Alhourani, University of Tampa, Florida, USA
Farshid Azadian, Embry-Riddle Aeronautical University, Daytona Beach, FL
Fernando Gonzalez Aleu, Engineering Department, UDEM
Gahangir Hossain, Texas A&M University-Kingsville, Texas
Ghorbanmohammad Komaki, Case Western Reserve University, Cleveland
Hamid Parsaei, Texas A&M University (College Station)
Hayder Zghair, Southern Arkansas University, USA
Jacqueline Chestnut, North Carolina A&T State University, Greensboro, NC
Jenny Diaz, University of Monterrey, Mexico
Jim Mennie, FL Poly
Jing Hou, FL Poly
Jooyup Eun, Vanderbilt University, Nashville, Tennessee
Jorge de Jesús Lozoya-Santos, Tecnológico de Monterrey
Lee Wells, Western Michigan University, Kalamazoo MI, USA
Leslie Monplasir, Wayne State University, Detroit, USA
Li Xu, Old Dominion University, USA
Lihui Shi, Centerfield Corporation, Los Angeles, California, USA
Loubna Benabbou, Universitè du Québec à Rimouski (UQAR) – Lévis Campus, Lévis, QC, Canada
Luis Rabelo, University of Central Florida, Orlando, FL, USA
Luis Rocha-Lona, Instituto Politécnico Nacional, Mexico City, Mexico
Luis Marie Valeza de la Rosa, Universidad de Monterrey, Monterrey, Mexico
M. El-Shark, University of South Alabama, Mobile, AL
Mahdi Fathi, University of North Texas, Denton, Texas, USA
Masud Rana, Delaware State University, USA
Mohamed Awad, California Polytechnic State University, San Luis Obispo

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8th North American IEOM Conference
Plenary Speakers

June 12, Tuesday, 2:00 – 2:40 am – Virtual Room 1 (Online)

Foad H Khanli
Director of Quality Assurance, Performance and Business Improvement
Amor Health Services, Inc.
Brownsville, Texas, USA

Application of Hoshin Kanri to accelerate Lean Six Sigma implementation in Healthcare

Mr. Hossein Khanli 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. Hossein Khanli 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.

June 13, Tuesday, 8:00 – 9:30 am – Meeting Room 1 (Onsite)

8:00 am – 8:30 am (Tuesday, June 13)

Dr. Mohammad Ichsan, PMP, PMI-SP
Assistant Professor
Faculty Member of Binus Business School (AACSB Accredited)
Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia

Mohammad Ichsan is an Assistant Professor of Binus Business School. He has published some books and papers in the area of project management. He has over 20 years of experience in managing projects in multiple industries such as Information Technology, construction, telecommunication, and financial services. His current research domain is Project Management Office, Sustainable Project Management, Agile Project Management, and Strategic Project Management. His teaching area is project management, operations management, and Supply Chain as well as research methodology in the both undergraduate and graduate programs. Dr. Ichsan received his electrical engineering degree from Hochschule Darmstadt in Germany (Diplom Ingenieur) and his master’s degree from the University of Indonesia in Project Management (Magister Teknik – Cum Laude), meanwhile, his Ph.D. is pursued from Bina Nusantara University majoring Strategic Management. Dr. Ichsan has also professional project management credentials such as Project Management Professional (PMP) and Project Management Institute – Scheduling Professional (PMI-SP) from Project Management Institute and Project Management Office – Certified Practitioner from PMO Global Alliance. He was appointed as Regional 15 Mentor PMI and a member of Project Management Institute Global and Indonesia Chapter.

8:30 am – 9:00 am (Tuesday, June 13)

Dr. Muhammad Fauzan
Director of Human Capital and Legal
PT Hutama Karya (Persero)
Indonesia

Muhammad Fauzan was born in Bengkalis on April 6th, 1973. He graduated with a Bachelor’s Degree (S1) in Civil Engineering from the Sepuluh November Institute of Technology in 1998 and a Master’s Degree (S2) in Financial Management from the University of Riau in 2009. Served as Director of Human Capital and Legal of PT Hutama Karya (Persero) based on the Minister of State-Owned Enterprises Decree No. SK-51/MBU/02/2021 regarding the Dismissal and Appointment of Members of the Board of Directors of the PT Hutama Karya (Persero) dated February 25th, 2021. Previously, he served on the Board of Directors of PT HK Realindo (2014-2016), Head of Business Development and Investment Division of PT Hutama Karya (Persero) (2016-2018), and Executive Vice President of Corporate Secretary of PT Hutama Karya (Persero) (2018-2021).
Nazmul Hossain
Engineer at Axiscades Inc.
CFD Engineer at Caterpillar Cooling Performance Simulation team
Houston, Texas, United States

Nazmul Hossain is a CFD Engineer currently working in the Cooling Performance Simulation team at Caterpillar's Large Power System Division. With a Master's degree in Computational Science from the University of Texas at El Paso (UTEP) and a Ph.D. in Mechanical Engineering from the University of Houston, he possesses a strong educational and research background in industrial and academic fluid dynamics related problems. Nazmul has also served as a lecturer at the University of Houston, teaching undergraduate courses such as fluid mechanics, thermodynamics, Element of Plant design, and introduction to CFD.

Nazmul has demonstrated his CFD expertise and problem-solving abilities through the successful completion of numerous projects focused on cooling performance optimization of large engines and engine components, and development of advanced power products. His specialization lies in multiphase flow modeling and simulations. Some notable projects include developing a common method to quantify solid particle bed performance, efficient fluidized bed design, as well as analyzing nano-particle suspensions in heat transfer fluids and novel Concentrating Solar Power (CSP) receiver design for CSP systems.

Nazmul has contributed to the field through publications on CSP technology and fluid-particle interactive bed performance analysis and optimization.
Anjum Ali, Ph.D.
(Redt.) 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.

Dr. Devinder Kumar Banwet FIE
Vice Chancellor Founding Retd.
University of Engineering & Management, Kolkata India
Professor Emeritus, DMS, IIT Delhi (India)

Prof. Devinder Kumar Banwet is Vice Chancellor Founding Retd. of University of Engineering & Management, Kolkata India. He is an Emeritus Professor of DMS IIT Delhi in the area of Operations & Supply Chain Management, Industrial Systems Engineering, Infrastructure Project Systems Management, TQM, DSS, Operations Research Applications, Prof Banwet is a graduate Mechanical Engineer, with Master of Industrial Engineering and a PhD (Industrial Engg/Production Management from IIT Delhi. Previously he served as a Vice Chancellor of the University of Engineering and Management at Kolkata. He has made significant contributions in publications related to Operations Management. His areas of research interest include Operations Management, Supply Chain and Logistics, Services Management, Project Management, IT-enabled DSS, Industrial Systems Engineering, Total Quality Management, Manufacturing Strategy, Technology Management, Materials Inventory Management, Operations Research Systems Modelling, Telecom Systems and Entrepreneurship Management. Prof Banwet has more than 40 years of academic teaching, research and administrative experience. Prof Banwet has guided 35 + PhD projects; has many research publications in reputed journals in India and abroad. He has prestigious assignments at Kuwait Institute for Scientific Research, University of Sorbonne at Paris, Asian Institute of Technology Bangkok; Awarded Best Engineer Award IE,India, PMI Distinguished Researcher Award, IEOM Award, Life Time Achievement Award of POMS India, ISTD India, President of professional Societies Decision Science Institute of USA India Chapter, Prof Banwet is on the Governing Board of many Professional Institutes of Technology, and Management, and usually Chairman of many NBA Nat Board of Accreditation team expert visits.

Louis H. Iselin
CTE/STEM Engineering and Robotics Instructor
Cypress Park High School, Cypress, Texas, United States

Louis H. Iselin is a career and technical education (CTE) teacher at Cypress Park High School in the Cypress-Fairbanks Independent School District near Houston, Texas. He teaches vocational engineering courses and robotics, pulling from his experiences as a physicist, graduate engineer, and US patent attorney. Prior to returning to education in 2018, he spent over 20 years in patent prosecution and litigation support. His first position after graduate school was as an Assistant Professor of Physics at Bloomsburg University. Louis received MEng and PhD degrees in Nuclear Engineering Sciences from the University of Florida in Gainesville. His undergraduate, ABET-accredited degree is in Engineering Physics from The University of Tulsa in Tulsa.
Oklahoma. Louis earned a JD degree from the University of Houston Law Center. He is a Texas certified teacher in mathematics, physical science, and engineering for grades 6-12. Louis is an Oklahoma Engineer Intern and a Chartered Physicist (CPHys) and corporate member (MInstP) of the Institute of Physics. He is also a 37-year member of the Institute of Electrical and Electronics Engineers (IEEE).

3:30 pm – 4:00 pm (Tuesday, June 13)

Soban Jalil
Senior Program Manager
Wabtec Corporation
Strategic Advisor, PakLaunch
Founder and Principal Consultant at SJ Consulting Services

Soban is an execution and people focused global operations leader with 25+ years of experience across multiple industrial segments including Transportation, Marine, Power Generation, Energy and Transit. He held various leadership positions through his career at GE Transportation, GE Oil & Gas, Baker Hughes and now Wabtec Corporation in Engineering, Program Management and Supply Chain teams. He is currently leading North America Transit Passenger programs at Wabtec Corporation as Senior Program Manager. Before his current role, he was Global Quality Services and Engineering Leader at Baker Hughes, a GE Company, a position he held for six years. Earlier in his career, Soban gained extensive experience in launching and marketing of new products and services, customer engagement, strategic program management, business cost and process improvement, quality assurance and digital transformation with various business segments of General Electric Company (GE). Soban has been a thought-leader for 20+ years and led projects from concept to commercialization across multiple regions including Americas, Europe, Middle East and Asia Pacific. Soban holds a bachelor’s degree in Electronic Engineering from GIK Institute, Pakistan, Master’s in Electrical Engineering from Gannon University, Reliability and Risk Management Certification from University of Maryland and Executive MBA from Katz School of Business, University of Pittsburgh. He holds 2 patents and presented technical and policy related papers at various conferences and forums. He is a practicing ISO 9001 Quality Auditor, certified Lean Six Sigma practitioner and PMI certified Project Management Professional (PMP). Soban was one of the founding members and active leader of GE and Baker Hughes Asian Pacific American Forum (APAF), a Diversity and Inclusion Employee Resource Group (ERG). He was recognized and valued at CEO Diversity Council for his APAF leadership and community service initiatives. He was an active board member of Erie Asian Pacific American Association. He has led various initiatives in nonprofit and community organizations including GE Foundation and The Citizens Foundation (TCF). He is also active member of OPEN Entrepreneurship Forums in Silicon Valley and Houston area. Soban is currently advising PakLaunch, an entrepreneurship platform to connect global diaspora to startups in Pakistan across various sectors. He also volunteers time as Business mentor for Society of Asian Scientists and Engineers (SASE) and Sawaya, a non-profit focused on providing sustainable green solutions. He is also advising GIKI Alumni Association, a vibrant community of 7000+ members, as global coordinator and executive team member for the organization.

Global Engineering Education II

4:00 – 5:45 pm – Meeting Room 1 (Onsite)
Session Chair: Anjum Ali, Ph.D.

ID 80 Analysis of the Technological Maturity Level of Industrial Engineering Students
Daniela del Carmen Bacre-Guzmán, María de los Ángeles Martínez-Mercado, Azucena Minerva García-León and Nury Margarita Leal-Rendón
Professor, School of Chemical Science, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

ID 208 You can’t hide behind the screen forever; The necessity of Foundational Skills in STEM careers
E Shirl Donaldson, University of Michigan Flint, United States

ID 131 Embedding Professional Development Courses in Curriculum
Dr. Sabah Abro, Professor and Graduate Program Director, Department of Engineering Technology, Lawrence Tech University, Southfield, USA

ID 51 A Comparison of Students’ Learning Experience in Undergraduate Engineering Programs Using Face-to-Face and Synchronous
Albertus Retnanto, Ph.D., Professor, Petroleum Engineering, Texas A&M University at Qatar, Doha, Qatar
Hamid R. Parsaei, Ph.D., P.E., Professor, Industrial and Systems Engineering, Texas A&M University, College Station, TX, USA
Boback Parsaei, Vice President and Chief Technical Officer, Integrated Technology Systems, Inc., Houston, Texas, USA
Plenary Speakers

10th IEOM Global Business Management and Global Project Management

Global Business Management and Global Project Management I
June 14, 2023 – 8:00 – 9:45 am - Room 1 (Onsite)

Session Chair:

8:00 – 8:20 am, June 14
Ajairaj Selvaraj (PMP)®
Project Engineer
JSW Steel
Houston, Texas, United States

8:20 – 8:40 am, June 14
David Giraldo
Principal Data Analytics Consultant
Simple BI Inc.
Houston, Texas, United States

8:40 – 9:00 am, June 14
9:00 – 9:20 am, June 14
9:20 – 9:40 am, June 14

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Plenary Speakers

39th IEOM Industry Solutions and Industry 4.0 - Plenary

Industry Solutions I
2:00 – 3:45 pm – Meeting Room 1 (Onsite)

Session Chair: Ms. Kayla Buczkowski
2:00 pm – 2:30 pm (Wednesday, June 14)

**Yanesh Naidoo**
Owner, Executive Innovations Director & Member of the Board at Jendamark
22′ Africa Technology Company of the year
Port Elizabeth, Eastern Cape, South Africa

2:30 pm – 3:00 pm (Wednesday, June 14)

**Ms. Kayla Buczkowski**
Applications Service Engineer
A&D Technology
4622 Runway Blvd
Ann Arbor, MI 48108

Ms. Buczkowski is currently employed as an Applications Service Engineer with A&D Technology and is pursuing the dual Master’s program of Engineering Management and Industrial Engineering at Lawrence Technological University as well as her Professional Engineering license in Mechanical Engineering. She graduated from Michigan Technological University in May 2018 with a Bachelor’s of Science in Mechanical Engineering, minoring in Music Performance.

Working for A&D Technology, Ms. Buczkowski has become one of the company’s experts in battery testing, engine testing, and hardware-in-the-loop testing. She integrates her company’s software, iTest, at their office in Ann Arbor, MI as well as at customer facilities around the globe. Currently, acting as one of the administrators of A&D Technology’s service department and is the lead trainer in charge of training internal employees and customers on A&D products.

Ms. Buczkowski has spent four years working for A&D Technology, but also accumulated an additional two years of design and testing experience through internships and co-ops during her undergraduate studies. During her time attending Michigan Tech in Houghton, MI, Ms. Buczkowski performed with the Keweenaw Symphony Orchestra, serving as principal percussionist for four of her five years. As a final project for her Music Performance minor, she conducted a song with the Keweenaw Youth Symphony Orchestra. After graduation, she has maintained her appreciation for music performance and currently plays with the Dexter Community Orchestra.

3:00 pm – 3:30 pm (Wednesday, June 14)

**Aaron Rubel, M.S.E.M.**
Head of Aircraft Maintenance Programs Development
Intellectual Property Focal Point
Airbus Americas, Inc.
Mobile, Alabama Engineering Center
Mobile, AL 36615, USA

Aaron Rubel is Head of Aircraft Maintenance Programs Development at the Mobile, Alabama Engineering Center of Airbus Americas. He is a certified Lean Six Sigma Black Belt and has earned patented inventions. Aaron has over 30 years of combined professional aerospace and automotive experience in areas of engineering, design, risk analysis, problem solving, manufacturing, and leadership. Mr. Rubel earned a M.S. in Engineering Management from the University of Tennessee at Chattanooga (UTC), a B.S. in Engineering Technology from Lawrence Technological University (LTU), and an Associate of Applied Science from Macomb Community College. Mr. Rubel’s honors include the Dr. Ron Cox Graduate Engineering Management Student Award given by UTC, and he was inducted into the LTU College of Engineering Hall of Fame. Service in the community is important to Aaron. He serves on a Mobile (Alabama) Area Education Foundation strategic planning committee for science, technology, engineering, and mathematics (STEM), and for three years was the strategic planning committee chair and voting member on a local school board.
Industry Solutions II – Lean Six Sigma
2:00 -3:45 pm – Meeting Room 1 (Onsite)

4:00 pm – 4:30 pm (Wednesday, June 14)

Rachel Stanford
Center Quality Manager
SLB, Houston, Texas, USA

Rachel Stanford is currently leading the Quality organization for the worldwide Bits & Drilling Tools manufacturing facilities at SLB, a global technology company in the energy industry. Rachel has been working for SLB for 15 years and has held positions in Operations, Engineering, Maintenance, and Quality, across the UK, Asia, and the US.

She started her career as a Field Engineer, working offshore in the South China Sea based out of Malaysia. This operations exposure gave Rachel a firsthand insight into how her products were used and allowed her to leverage this knowledge in her next position as Electronics Engineer to design better products. Rachel spent 2 years in a design role in England, before moving to Houston, Texas as a Reliability Engineer, focused on improving the performance of her products in the field. She was then promoted into Engineering Management, and in 2018 took up the position of Maintenance Manager in Scotland, covering all of Europe. Rachel stepped away from the energy industry for one year to work as a Reliability Engineer at Amazon to obtain exposure in a new industry, before returning to SLB in her current role as global Quality Manager for the Bits & Drilling Tools Manufacturing centers worldwide.

Rachel is originally from Northern Ireland, and holds a Masters degree in Electrical and Electronics Engineering from Queen's University Belfast (2008). Rachel is an American Society for Quality Certified Reliability Engineer, and also holds the Project Management Professional certification from the Project Management Institute. She is Lean Green Belt certified. Rachel enjoys supporting young engineers in their career and is passionate about encouraging women into the Engineering field. She founded the “Rachel Stanford Scholarship for Emerging Leaders in Engineering and Computer Science” at Queen’s University, a scholarship aimed at supporting and encouraging female students into STEM subjects.

4:30 pm – 5:00 pm (Wednesday, June 14)

Jerel Scrutchin, MBA
Executive Consultant – Manufacturing
SBTI
Pearland, Texas, United States

5:00 pm – 5:30 pm (Wednesday, June 14)

Abdul Rahman Saddiq
Senior Associate, Predictive Diagnostics
EDP Renewables
Houston, Texas, United States
Plenary Speakers

19th IEOM Global Supply Chain and Logistics

Global Supply Chain and Logistics I
June 15, 2:00 – 3:45 pm – Meeting Room 1 (Onsite)

2:00 pm – 2:20 pm (Thursday, June 15)

Manohar S. Madan, PhD
Professor
ITSCM Department
University of Wisconsin-Whitewater
Whitewater, WI – 53190

Manohar Madan is a Professor in the Information Technology and Supply Chain Management Department in the College of Business and Economics at the University of Wisconsin-Whitewater. He has a Ph.D. in Operations Management from the University of Tennessee, Knoxville, Tennessee. He has a Master’s degree in Engr. Mgmt. from the University of Detroit, Detroit, Michigan. His teaching and research interests are in the areas of Operations Management, Supply Chain Management and Project Management. Manohar’s research has been published in many professional journals such as the Journal of Operations Management, IIE Transactions, OMEGA – The Journal of Management Science, International Journal of Operations and Production Management, International Journal of Production Research, International Journal of Production Economics and the Journal of Operational Research Society. He is certified as CPIM by APICS (now ASCM).

2:20 pm – 2:40 pm (Thursday, June 15)

ID 129 A firm-based perspective of the notion “Carbon Neutrality”: Role of Supply Chain Mapping
Muhammad Shujaat Mubarik, College of Business Management, Institute of Business Management, Karachi, Pakistan
Sharfuddin Khan, Department of Industrial Systems Engineering, University of Regina, Canada

2:40 pm – 3:00 pm (Thursday, June 15)

Mohammad Anwar Rahman, Ph.D.
Associate Professor
Manufacturing and Construction Management
Central Connecticut State University
New Britain, CT, USA

Dr. Mohammad Anwar Rahman is a faculty at the Central Connecticut State University in Manufacturing and Construction Management. He has published papers in refereed 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 Baldridge 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.

3:00 pm – 3:20 pm (Thursday, June 15)

3:20 pm – 3:40 pm (Thursday, June 15)

9th North American Conference on Industrial Engineering and Operations Management
Washington, DC, USA, June 4-6, 2024
Host: University of University of the District of Columbia, Washington, DC
Venue: UDC Campus, 4200 Connecticut Ave NW

Conference Chair

Dr. Devdas Shetty
Dean, School of Engineering and Applied Sciences and Professor of Mechanical Engineering
University of the District of Columbia, Washington, DC, USA
## Parallel Sessions

### Monday, June 12, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:00 am</td>
<td>Undergraduate Student Paper Competition</td>
<td>Room 1</td>
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<tr>
<td></td>
<td>Supply Chain and Logistics Competition</td>
<td>Room 2</td>
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<tr>
<td>10:00 am</td>
<td>Graduate Student Paper Competition</td>
<td>Room 3</td>
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<tr>
<td></td>
<td>Human Factors and Ergonomics Competition sponsored by CINTAS</td>
<td>Room 4</td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Data Analytics and Decision Sciences</td>
<td>Room 5</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Keynote V: Dr. Mark A. Bolen, VP of Quality, Engineering &amp; Fleet, Cintas Corporation, Lebanon, Ohio, United States</td>
<td>Room 6</td>
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<tr>
<td>6:00 pm</td>
<td>IEM Global Council Meeting</td>
<td>Room 7</td>
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### Tuesday, June 13, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>10:00 am</td>
<td>Welcome Address – Dr. Hamid Parsaie, Professor in Industrial and Systems Engineering, Texas A&amp;M University, College Station</td>
<td>Room 1</td>
</tr>
<tr>
<td>10:20</td>
<td>Keynote I: Dr. Satish Bukkapatham, Professor, Industrial &amp; Systems Engineering, Rockwell International Professor, College of Engineering and Director, TEEIS Institute for Manufacturing Systems, Texas A&amp;M University, College Station, Texas, USA</td>
<td>Room 2</td>
</tr>
<tr>
<td>11:00</td>
<td>Keynote II: Dr. Vekk Anand, Vice President &amp; Head of Technology, Deloitte Consulting, Houston, TX, USA</td>
<td>Room 3</td>
</tr>
<tr>
<td>11:40</td>
<td>Keynote III: Mark A. Bolen, VP of Quality, Engineering &amp; Fleet, Cintas Corporation, Lebanon, Ohio, United States</td>
<td>Room 4</td>
</tr>
<tr>
<td>12:20</td>
<td>Keynote IV: Foad H Khanl, Director of Quality Assurance, Performance and Business Improvement, Aeri Health Services, Inc., Brownsville, Texas, USA</td>
<td>Room 5</td>
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<tr>
<td>1:30</td>
<td>Buffet Lunch</td>
<td>Room 6</td>
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<tr>
<td>2:00</td>
<td>Global Engineering/Education I</td>
<td>Room 7</td>
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<tr>
<td>4:00</td>
<td>Global Engineering/Education II</td>
<td>Room 8</td>
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### Wednesday, June 14, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>10:00 am</td>
<td>Conference Chair Remarks</td>
<td>Room 1</td>
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<tr>
<td>10:20</td>
<td>Keynote V: Dr. Gino Lim, R. Larry and Gerlene (Genn) R. Snider Endowed Chair and Professor &amp; Chair, Department of Industrial Engineering, University of Houston – University Park, Houston, Texas, USA</td>
<td>Room 2</td>
</tr>
<tr>
<td>11:00</td>
<td>Keynote VI: Jose Rivera, Chief Admin Quality Officer, MD Anderson Cancer Center, Houston, Texas, United States</td>
<td>Room 3</td>
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<tr>
<td>11:40</td>
<td>Keynote VII: Dr. Robert Swearingen, Head of Strategic Sourcing and Supply Chain Management, Siemens GCI, Texas, USA</td>
<td>Room 4</td>
</tr>
<tr>
<td>12:20</td>
<td>Keynote VIII: Dr. Luis Kabelo, Professor, Department of Industrial Engineering &amp; Management Systems, University of Central Florida, Orlando, USA</td>
<td>Room 5</td>
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<tr>
<td>1:30</td>
<td>Buffet Lunch</td>
<td>Room 6</td>
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<tr>
<td>2:00</td>
<td>Industry Solutions and Industry 4.0 I</td>
<td>Room 7</td>
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<tr>
<td>4:00</td>
<td>Industry Solutions and Industry 4.0 II</td>
<td>Room 8</td>
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### Thursday, June 15, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:00 am</td>
<td>SCM Workshop</td>
<td>Room 1</td>
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<td>Supply Chain 4.0 - the next-generation supply chain practices</td>
<td>Room 2</td>
</tr>
<tr>
<td>10:00</td>
<td>Conference Chair Remarks</td>
<td>Room 3</td>
</tr>
<tr>
<td>10:20</td>
<td>Keynote IX: Dr. Magdy Atias, Department Chair of Physical and Applied Sciences and Professor of Occupational Safety and Health with specializations in industrial hygiene or safety, College of Science and Engineering, University of Houston-Clear Lake, Texas, USA</td>
<td>Room 4</td>
</tr>
<tr>
<td>11:00</td>
<td>Keynote X: Suresh Vaidyanathan, Chief Engineer &amp; General Manager, Refined Business Improvement, Phillips 66, Westchase, Houston, Texas</td>
<td>Room 5</td>
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<tr>
<td>11:40</td>
<td>Keynote XI: Mr. Bruce Webb, Chief Pilot, Director of Aviation Education and Community Outreach, Airbus Helicopters, Inc., Prairie, Texas, USA</td>
<td>Room 6</td>
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<tr>
<td>12:20</td>
<td>Keynote XII: Paul Perkins, President, Amatrol, Inc., Jeffersonville, Indiana, USA</td>
<td>Room 7</td>
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<tr>
<td>1:30</td>
<td>Buffet Lunch</td>
<td>Room 8</td>
</tr>
<tr>
<td>2:00</td>
<td>Global Supply Chain and Logistics I</td>
<td>Room 1</td>
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<tr>
<td>4:00</td>
<td>Innovation and Entrepreneurship Workshop</td>
<td>Room 2</td>
</tr>
</tbody>
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**Awards Ceremony and Dinner Buffet**

7:00 – 10:00 pm, June 15, 2023 – Hilton Hotel University of Houston
June 2023 (Monday)

Undergraduate Student Paper Competition Sponsored by Siemens

Session Chair: Dr. Mizanur Rahman, Associate Editor, IEOM Society

ID 236 2D to 3D Scale Modeling
Ulan Dakeev, Associate Professor, Sam Houston State University, Huntsville, TX, USA
Erin Trejo, Student, majoring in Engineering Design & Technology, Sam Houston State University, Huntsville, TX, USA

ID 290 Application of Balanced Scorecard Method in Measuring Halal Frozen Food Supply Chain Performance
Riftah Sansinova, Bachelor Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia
Ifthah Salsabila Lukman Siregar, Bachelor Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia
Bernike Putri Sembiring, Bachelor Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia
Batriisyia Atikah, Bachelor Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia
Dini Wahyuni, Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia

ID 302 Development of 2 In 1 Back Support Tool Using the Quality Function Deployment Method
Arnold Benedict Chris, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia
Christopher Davin, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia
Favian Lorenzo Hendrawan, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia
Fredy Johnson, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia
Darril Tiovan, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia

ID 45 Noise and Vibration Analysis of Permanent Magnet Synchronous Motor by Stator Slot/Rotor Poles
Bui Minh Dinh, School of Electrical and Electronic Engineering, Hanoi University of Science and Technology (HUST), Vietnam

ID 326 Optimal Resilience-Based Locations for Restoration Facilities of Interdependent Infrastructure Networks Under Uncertainty of Disruptions
Omar Kseibi, Mohamed Alshayeb, Ibrahim Magdy and Yasser Almoghathawi, Department of Industrial and Systems Engineering, The Interdisciplinary Research Center for Smart Mobility and Logistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 325 Optimal Restoration Plan for Works Crews of Disrupted Interdependent Infrastructure Networks under Uncertainty
Mohamed Alshayeb, Omar Kseibi, Ibrahim Magdy and Yasser Almoghathawi, Department of Industrial and Systems Engineering, The Interdisciplinary Research Center for Smart Mobility and Logistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 47 Outer Rotor Design of Permanent Assisted Synchronous Reluctance Motor for Electromagnetic Characteristic Improvement
Bui Minh Dinh, School of Electrical Engineering, Hanoi University of Science and Technology, Vietnam

ID 198 Smart Factories -An Important Component of Industry 4.0
Saujanya Dave, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
Deveng Desai, Anuj Shah and Aditya Savelia, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University Gandhinagar, Gujarat, India
M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

Althea Miquela, Dhiraj Bagul and Ahmed Aziz Ezzat, Rutgers, The State University of New Jersey, Piscataway, NJ, 08854, United States

ID 368 The importance of the work area design to have a good ergonomics and production

ID 369 Design of Experiments: Finding a balance between Quality and Safety
Jacqueline García Vacay and Rogelio Portillo Rosales, Universidad Politécnica de San Luis Potosí San Luis Potosí, San Luis Potosí 78369, Mexico

ID 371 Implementation of Lean manufacturing: The Impact of Gemba Walks in the Continuous Improvement of PEASA Plant 02
Supply Chain and Logistics Competition
Session Chair: Dr. Taufiq Islam, Operations Manager, IEOM Society

Basel Sultan and Daryl Santos, Thomas J. Watson College of Engineering and Applied Science, The State University of New York at Binghamton, Binghamton, NY 13902, USA
Michael Hsieh, Foxconn Industrial Internet, Houston, TX 77064, United States

ID 320  A Python-Based Tool for Load Formation and Route Optimization with Heterogeneous Truck Cost and Capacity Constraints: A Case Study of a Heavy Equipment Manufacturing Company
Amin Zameel N, Department of Mechanical Engineering, National Institute of Technology Calicut, Calicut, 673 601, Kerala, India

ID 294  Machine Learning Applications for enhancing the Supply Chain Productivity- A Review
Deep Bhalodiya, Department of Mechanical Engineering, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

ID 3  Proposing a new promising constraint to the single stage capacitated warehouse location problem (SSCWLP)
RRK Sharma, Department of IME, IIT Kanpur 208016, India
Ajay Jha, Department of Operations Management, Jaipuria Institute of Management, Lucknow, 226010, India
Priti Bhatnagar, Kanpur Divisional Office, Indian Oil Corporation Ltd, Kanpur 208001, India

Graduate Student Paper Competition sponsored by Eaton
Session Chair: Nusrat Islam, Assistant Editor, IEOM Society

ID 84  A Feasibility Study of Carbon Capture and Storage in the United States
Louis Noel, Master of Engineering Management and Leadership, Rice Center for Engineering Leadership, Rice University, Houston, Texas, USA
Erick Danyi, P.E., Professional Master of Chemical Engineering, Department of Chemical Engineering, Rice University, Houston, Texas, USA
Edgar Avalos-Gauna, Ph. D., Faculty Lecturer, Researcher, Rice Center for Engineering Leadership, Department of Statistics, Rice University

ID 247  A Policy for the Conservation of Bara Katra in the Old Dhaka Industrial Area
Rabaya Nusrat Niva, Faculty of Engineering, Department of Architecture, Premier University, Dhaka 1000, Bangladesh

ID 318  A Review on Inspection Cost Minimization by Optimal Number Inspectors in Apparel Manufacturing
Shibbir Ahmad, Mechanical Engineering Department, Dhaka University of Engineering & Technology, Gazipur, Bangladesh

ID 343  Design of a semi-automatic coconut scraper
Supervisor, Ali Mamedov, College of Engineering and Technology, American University of the Middle East, Kuwait
Sultan AL-Hajri, Fahad AL-Dhaiee, Abdulamjeed Sultan and Hussain AL-Shammari, College of Engineering and Technology, American University of the Middle East, Kuwait

ID 210  Design on an Innovative Bike Sharing Vehicle with Helmet Sanitation System
Giulio Galilé, Giorgia Venditti, Marco Freddi, Curzio Pagliari, Edoardo Pignatelli and Leonardo Frizziero, Alma Mater Studiorum – Università di Bologna, Viale Risorgimento 2, 40136, Bologna, BO, Italy

ID 200  Development of an Innovative Family Car Prototype through the use of IDeS method
Giacomo Mascitelli, Master’s degree Student, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Bologna, Italy
Curzio Pagliari, Giulio Galilé, and Edoardo Pignatelli, Ph.D. Students, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Bologna, BO 40136, Italy
Leonardo Frizziero, Senior Assistant Professor, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Bologna, Italy

ID 213  E-Delphi Prioritization of Capital Structure Determinants in Small and Medium Size Business in Puerto Rico
Karen Albó Medina, Graduate Student of Industrial Engineering, University of Puerto Rico, Mayaguez, Puerto Rico
Mayra I. Méndez Piñero PhD., Professor of Industrial Engineering, University of Puerto Rico, Mayagüez, Puerto Rico

ID 202  Enhancing Operational Efficiency: A Study on Lean Manufacturing Implementation in Small and Medium-sized Enterprises
Hossein Soltani and Pawan Bhandari, Department of Manufacturing Engineering Technology, Minnesota State University, Mankato, MN 56001, United States
ID 194  **Ergonomic Design of Driver’s Workstation for Modern Jeepney of ABC Transport Service and Multi-Purpose Cooperative**  

ID 317  **Analysis of Human Error in the Halal Supply Chain of Kemplang Crackers**  
Sari Wahyuni, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia  
Mohammad Azmi Fadli, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia  
Novia Maharani, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia  
Putri Airinah Lubis, Undergraduate Student at Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara Medan, Sumatera Utara, Indonesia  
Dini Wahyuni, Department of Industrial Engineering, Faculty of Engineering, University of Sumatera Utara, Medan, Sumatera Utara, Indonesia

ID 124  **Flight Attendant Injury Prevention Via the Use of VR and Motion Tracking Techniques While Pushing and Pulling the Service Trolley**  
Ethan Swierski, Maria Arenas and Xiaoju Ji, Biomedical Engineering Department, Gannon University, Erie, PA, 16541, United States

ID 268  **Impact of Work Demand and Job Autonomy on Employee Sustainable Performance with Digital Leadership as Moderating Variable: A Proposed Framework**  
Eko Yulianto, Triaji Prio Pratomo, Zulkifli Zein and Lalu Supardin, Doctoral Students, Faculty of Business and Economics, Islamic University of Indonesia (UII), Yogyakarta, Indonesia

8:00 – 9:45 am, MONDAY, June 12  
**Masters and Doctoral Competitions**  
Virtual Room 5

**Doctoral Dissertation Competition**

ID 98  **A Study on The Application Feasibility in The Steel Industry of Existing Maturity Models of Assessing Industry 4.0 Readiness**  
Alexandre Pimentel Sampaio, PhD Program of Department of Economics, Management, Industrial Engineering and Tourism, University of Aveiro, Aveiro, Portugal  
Ana Maria Pinto de Moura, GOVCOPP, University of Aveiro, Aveiro, Portugal  
Ricardo Henriques Leal, Director of Innovation Agency (AGIR), University of Federal Fluminense (UFF), Niterói, Brazil

ID 286  **Enhancing Sustainable Competitiveness through Application of Kaizen Philosophy Practices in Ethiopian Manufacturing Industries**  
Haftu Hailu, Hallekiros Sibhato and Kinfe Tsegay, Industrial Engineering Department, Ethiopian Institute of Technology-Mekelle (EiT-M), Mekelle University, Mekelle, Tigray, Ethiopia

**Masters Thesis Competition**

ID 190  **A Spatial Analyze Approach for Determining the Best Possible Locations of Police Stations in Azaz**  
M. Radwan Mouket, Department of Industrial Engineering, Gaziantep University, Gazianep, Turkey  
Alptekin Durmuşoğlu, Department of Industrial Engineering, Gaziantep University, Gazianep, Turkey

ID 63  **Deep Reinforcement Learning in Optimal Policy Design for Maintenance and Outsourcing of Manufacturing Systems**  
Hao Wang, Department of Systems Science and Industrial Engineering, Binghamton University, 2023, United States  
Dr. Changhai Cheng, Faculty Advisor, Department of Systems Science and Industrial Engineering, Binghamton University, United States

ID 5  **Impact of Workload Balancing on the Sustainability of Processes in a Manufacturing Company**  
Arturo Realyváñez-Vargas, Perla María Larranaga, Karina Cecilia Arredondo-Soto, Guadalupe Hernández-Escobedo and Amalia Carmina Salinas-Hernández, Department of Industrial Engineering, Tecnológico Nacional de México/Instituto Tecnológico de Tijuana, Tijuana, Baja California, Mexico

ID 137  **Spare Parts Sales Demand Forecasting Model using Seasonal Autoregressive Integrated Moving Average**  
Wahyu Wirowo Putro and Arian Dhini, Industrial Engineering Department, Faculty of Engineering, University of Indonesia, Depok, West Java, Indonesia

8:00 – 9:45 am, MONDAY, June 12  
**Virtual Room 6**

**Senior Design Project Competition sponsored by Tooling Tech Group**

**Session Chair:** Aqib Islam, Assistant Editor, IEOM Society

ID 324  **“LRMTW: A Goal Programming-Based Reactive Model for Sustainable and Resilient Supply Chains in the Aftermath of Disasters”**
ID 323  "Optimizing Supply Chain Resilience and Green Delivery Operations through a Proactive Risk-Aware Model: LRMTW
Abdullah, King Fahd university of petroleum and minerals, Saudi Arabia

ID 304  Design and Manufacturing of Front/Rear Jack for Formula Student Competition
Zainb Alshammari, Dalal Alrashidi, Lamyaa Alharbi, Shahad Malek and Muneerah Shehab, College of Engineering and Technology, American University of the Middle East, Kuwait

ID 127  Improving Outbound Logistics in A Food Factory
Lara Alzain, Bashayer Alkhahmi and Aldana Basuni, Department of Industrial Engineering, Faculty of Engineering, King Abdulaziz University, Jeddah - Saudi Arabia
Dr. Ammar Y. Alqahtani, Associate Professor at Department of Industrial Engineering, Faculty of Engineering, King Abdulaziz University, Jeddah - Saudi Arabia

COVID-19 Analytics Competition

ID 243  Time-delayed correlation of two time series through class-based forecasting: the Covid 19 case in Puerto Rico
Nanette R Xu-Cuevas, (UPRM, Industrial Engineering), Puerto Rico
Cristian D Rosario-Marcan,2 (UPRM, Industrial Engineering), Puerto Rico
Mauricio Cabrera Rios, PhD., (UPRM, Industrial Engineering), Puerto Rico
Clara Eugenia Isaza, PhD5 (UPRM, Biology), Puerto Rico

ID 373  Dynamic Design of Water Flow Management in Lebak Swamp Land, Pesisir Selatan District, West Sumatra During the Covid-19 Period
Yenita and Agustinus Purna Irawan, Faculty of Engineering, Universitas Tarumanagara, Letjen S. Parman No. 1, West Jakarta, Indonesia

ID 421  Post Covid-19 Complication Detection By using ml review paper
Syed Mominin Islam Tamim, Md Nadim Hasan and Md Tafsimul Islam Tanzid, American International University Bangladesh, Dhaka, Bangladesh

8:00 – 9:45 am, MONDAY, June 12  Business Management  Virtual Room 7
Session Chair: Andri D. Setiawan, Industrial Engineering Department, Universitas of Indonesia, Kampus UI, Depok, Indonesia

ID 345  Hyper-Segmentation Lapse MyTelkomsel Apps Using K-Means Clustering to Increase Data Package Purchases in Area 3 - East Java, Central Java - DIY, Bali Nusa Tenggara
Windy Herlin Ali, A Student of Faculty of Economics and Business, Telkom University, Faculty of Economics and Business, Telkom University Bandung, Indonesia
Maya Ariyanti, An Associate Lecturer of Digital Business Strategy Studies, Faculty of Economy & Business, Telkom University, Bandung, Indonesia

ID 346  Business Management and Business Engineering of The Internet of Things (IoT), Cybersecurity, and Additive Manufacturing
Khristian Edi Nugroho SOEBANDRIJA , Industrial Engineering Department, Faculty of Engineering, Bina Nusantara University, Jakarta, Indonesia

ID 357  Selection of Solar Panels Based on Brand Using Fuzzy AHP – TOPSIS Method
Ignatius Malay Francia, Industrial Engineering, Universitas Indonesia, Salemba, Indonesia
Dr. Ir. Andri Dwi Setiawan, M.Sc, Industrial Engineering, Universitas Indonesia, Salemba, Indonesia

ID 358  Drivers and Barriers to Circular Economy in Indonesian Palm Oil
Widyaningish Sura, Industrial Engineering, Universitas Indonesia, Depok, Indonesia
Romadhani Ard, Industrial Engineering, Universitas Indonesia, Depok, Indonesia

ID 356  Reverse Logistics Strategy for Electronic Waste Infrastructure in Indonesia
Sangdaffa Adetyantama, Industrial Engineering, Universitas Indonesia, Depok, Indonesia
Romadhani Ard, Industrial Engineering, Universitas Indonesia, Depok, Indonesia

ID 348  Big Data Analytics and Cloud Computing on Industrial Management, Information Engineering and Data Science
Khristian Edi Nugroho SOEBANDRIJA , Industrial Engineering Department, Faculty of Engineering, Bina Nusantara University, Jakarta, Indonesia

ID 352  Analysis of Production Scheduling and Line Balancing for Polycarbonate Lens Production
Cansa Julisa Muhammad Yusuf and Andri D. Setiawan, Industrial Engineering Department, Faculty of Engineering, Universitas of Indonesia, Kampus UI, Depok 16424, Indonesia

June 12, 2023 (Monday) - Session: 10:00 – 11:45 am

10:00 – 11:45 am, MONDAY  Continuing Session  Virtual Room 1
Undergraduate Student Paper Competition Sponsored by Siemens
High School STEM Poster Competition

Session Chair: Nusrat Islam, Assistant Editor, IEOM Society

ID 162 A Study on the Impact of Computer Games using Artificial Intelligence Technology
Benny Choi and Shin Dong Ho, Student and Professor, MY PAUL SCHOOL, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Student, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

ID 160 A Study on Whether Artificial Intelligence can have Artificial Emotions
Lee Ji Yun and Shin Dong Ho, Student and Professor, MY PAUL SCHOOL, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Student, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

ID 159 Convolutional Neural Network Architectures Analysis for Image Captioning
Jun Seung Woo and Shin Dong Ho, Student and Professor, MY PAUL SCHOOL, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea

ID 158 Research on the Future Distribution Industry using Artificial Intelligence
Kim See You and Shin Dong Ho, Student and Professor, MY PAUL SCHOOL, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Student, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

ID 161 Future Prospects of Governance and Democracy Using Artificial Intelligence
Jung Ji-Seok and Shin Dong Ho, Student and Professor, MY PAUL SCHOOL, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Student, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

ID 155 Improvement Proposal to Standardize and Increase the Production of a Spinning Company Through Lean Manufacturing
Juan Carlos Chiroque Seminario and Sergio Crosato Oyarce, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Lima, Peru
Ávalos - Ortecho Edilberto Miguel, Professor, Ortecho Edilberto Miguel, Professor, Universidad de Lima, Lima, Peru

ID 207 Just be tobacco free
Rishi Kalikant Jha, High School student, Dadra Nagar Haveli & Daman Diu, India

Lean Six Sigma Competition sponsored by Tooling Tech Group

Session Chair: Tahera Parven, Assistant Editor, IEOM Society

ID 134 Application of lean manufacturing to increase productivity in the finishing area in an industrial rubber company
Daniela Milagros La Rosa – Castañeda and Edwar Marcelo Castillo – Carbajal, Bachelor of Industrial Engineering, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Lima, Peru
Ávalos Ortecho Edilberto Miguel, Professor, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Lima, Peru

ID 292 Applying Lean Thinking to Improve Processes in the Trucking Industry
Abhiram Reddy Ramasahayam, Kuldeep Agarwal and Naim Islam, Department of Automotive and Manufacturing Engineering Technology Minnesota State University, Mankato, MN 56001, United States

ID 155 Improvement Proposal to Standardize and Increase the Production of a Spinning Company Through Lean Manufacturing
Juan Carlos Chiroque Seminario and Sergio Crosato Oyarce, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Lima, Peru
Ávalos - Ortecho Edilberto Miguel, Professor, Faculty of Engineering and Architecture, Universidad de Lima, Lima, Peru

ID 234 Application of Lean Manufacturing and TOC to increase productivity in a company in the hermetic windows sector
Erik Andrade Rozas, Giancarlo Robello Ponce and Edilberto Miguel Ávalos-Ortecho, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Lima, Peru

ID 276 Reducing Mobile Phone Repair Cycle Time at A Telecommunications Company Using Lean Six Sigma
Catarina Canhalho, Master’s Student in Management of Services and Technology, Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal
Jamison V. Kovach, PMI Houston Endowed Professor in Project Management, University of Houston, Houston, TX, USA
Sofia Kalakou, Business Research Unit (BRU-ISCTE), Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal
Simulation Competition

Session Chair: Aqib Islam, Assistant Editor, IEOM Society

ID 65 Proposal to Improve the Reusable Urban Waste Management System in Santiago De Surco, Lima, Peru to Increase the Utilization of the District's Treatment Plant
Sebastián Alejandro Fernández Villafán, Lorena Alejandra Torres Bravo and María Ezilda Cabrera Grados, Industrial Engineering, Faculty of Engineering and Architecture, University of Lima, Lima, Peru

ID 303 Analyzing the Operational Parameters of a Single Walled Carbon Nanotube Field Effect Transistor (SWCNT-FET)
S M Shakil and Muhammad S. Ullah, Department of Electrical and Computer Engineering, Florida Polytechnic University, Lakeland, Florida, USA

ID 76 Developing and Validating Mathematical Model for Electricity System Transition Planning
Varun Jyothiprakash, P Balachandra and Abhishek Das, Department of Management Studies, Indian Institute of Science, Bengaluru -560012, India
Samridh Sharma, Inter-Disciplinary Centre for Energy Research, Indian Institute of Science, Bengaluru– 560012, India

ID 141 Heuristic-based Simulation Modeling for Traveling Salesman Problem with Time Limit Constraints
Mojahid F. Saeed Osman, Department of Industrial and Manufacturing Engineering, North Dakota State University, Fargo, North Dakota, USA

ID 273 Reliability Issues in Current MOSFET and Beyond Silicon Technology
S M Shakil and Muhammad S. Ullah, Department of Electrical and Computer Engineering, Florida Polytechnic University, Lakeland, Florida, USA

ID 316 The development of neural Network based rainfall-runoff model for Kashmir Pakistan
Madiha Mazhar, Dept. of Chemistry and chemical Engineering, Lahore University of Management Sciences, Lahore, Pakistan

Undergraduate Research Competition sponsored by Daikin Applied

Session Chair: Dr. Nazrul Islam, Associate Editor, IEOM Society

ID 251 Identification of Ergonomic Risk Factors and Safety Concerns in Metal Fabrication Industries
S.M. Hasanuddin, Student, Methodist College of Engineering and Technology, Hyderabad, India
Qutubuddin S.M., Associate Professor, P.D.A. College of Engineering, Kalaburagi, India
Ayesha Fatima, Student, Stanley College of Engineering and Technology for Women, Hyderabad, India

ID 327 Components Importance Measures for Interdependent Infrastructure Network
Ibrahim Magdy, Omar Kseibi, Mohamed Alishayeb and Yasser Almoghathawi, Department of Industrial and Systems Engineering, The Interdisciplinary Research Center for Smart Mobility and Logistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 322 Exam Scheduling Conflict Optimization
Ali Alismai, Industrial Engineering Department, King Fahd University of Petroleum and Minerals, Saudi Arabia
Mohammad Alsaad, Industrial Engineering Department, King Fahd University of Petroleum and Minerals, Saudi Arabia
Abdulrah Alqarne, Industrial Engineering Department, King Fahd University of Petroleum and Minerals, Saudi Arabia

ID 83 Injector Hat Redesign and Manufacturing, Optimizing the Design of a Supercharger Injector Hat
Nicholas T. White, Nicholas DuPont, Michael Walter, Johannis Brown, Edwin Diaz, Soesoe Aye, Mohammed Huda and Daris Monroy Castillo, Department of Mechanical Engineering Technology, Buffalo State University, Buffalo, NY, USA
Joshua Van Lew, Department of Electrical Engineering Technology, Smart Grid, Buffalo State University, Buffalo, NY, USA
Sterling J. Jones and Steven Phengsomphane, Department of Industrial Engineering Technology, Buffalo State University, Buffalo, NY, USA

ID 376 The Impact of Communication and Trust in Leadership on Workers' Compensation: A Case Study of Suka Ramai Coffee Shop in Tanjung Pinang City
Soraya Agustina Situmorang, Management Department, BINUS Business Scholl Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia
Yellen, BINUS Business Scholl Undergraduate Program Student, Bina Nusantara University, Jakarta, Indonesia

Business Management

Session Chair: Huifen Chen, Chung-Yuan University, Taoyuan City, Taiwan

ID 278 Indian Management: New Routes to Corporate Culture
Nilanka, Universal Business School, Karjat, India

ID 240 Developing an Entrepreneurial Small Business' Strategic Plan by Shortened Systematic Strategic Planning (SSP)
HAKAN TED University, Turkey

ID 205 The impact of external business environment on the performance of business organisations and the moderating role of internal organisational resources
Koketso Rampyapedi and Olufemi Adetunji, Department of Industrial and Systems Engineering, University of Pretoria, Pretoria 0002, South Africa

ID 105 Data Driven Worker Routing for Irrigation Monitoring

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ID 285  A Cross-Sectional Study on Anger Expression Among Students in University of Cyberjaya, Malaysia
Nur Aini Nadijah Binti Rosdan, Student, School of Medicine, University of Cyberjaya (UoC), Cyberjaya, Malaysia
Kirsharuhpini Gopalakrishnan, Abu Huzailah Bin Muhamad Sharman, Kenny Anak Paschal and Dr. Muhammad Radhi Ahmad, School of Medicine University of Cyberjaya (UoC), Cyberjaya, Malaysia

ID 60  Prediction of COVID-19 Cases with ARIMA Models
Huifen Chen, Department of Industrial and Systems Engineering, Chung-Yuan University, Taoyuan City, Taiwan

10:00 – 11:45 am, MONDAY, June 12  Automation and Control  Virtual Room 7
Session Chair: Aamar Shabir, Department of Electrical and Computer Engineering, Florida Polytechnic University, Lakeland, Florida, USA
ID 347  Defense Management Science on Artificial Intelligence and Autonomous Robot
Khristian Edi Nugroho SOEBANDRIJA, Industrial Engineering Department, Faculty of Engineering, Bina Nusantara University, Jakarta, Indonesia

ID 250  Underwater Surveillance Autonomous Boat
Atanu Debnath, Department of Electrical Engineering, Lamar University, Beaumont, Texas, USA
NA Nithe and MN Uddin, Department of Electrical and Electronic Engineering, Northern University Bangladesh, Banani, Dhaka-1213, Bangladesh
Emir Neziric, Department of Mechanical Engineering, Dzemal Bijedic University Mostar, Bosnia and Herzegovina

ID 277  An attempt of Sustain future by means of Green Economy
Aftab Alam, Mohsina Hayat and Syed Mohd Jamial Mahmood, SOMGD Goenka University, India

ID 218  An MCDM Approach to Smart Contract Adoption in Indian Electronic Industry
Imnatila Pongen and Pritee Ray, Department of Operations Management, Indian Institute of Management Ranchi, Jharkhand-834008, India

ID 319  Design of MR Damper for Automobile suspension with Finite Element method
Aamar Shabir, Department of Electrical and Computer Engineering, Florida Polytechnic University, Lakeland, Florida, USA
Umar Irshad, Muhammad Shoaib and Huzafa Abeer, Department of Electrical and Computer Engineering, NFC Institute of Engineering and Technology, Multan, Pakistan

ID 331  Data Analytics to discover what kind of people are more prone to have Alzheimer's disease?
Rosa Aracelli Centeno Sánchez, Business Process Manager at Cleaning and Beauty Products, Founder of Cleaning and Beauty Products, BeauPharm, and VousConseil, Senior Process Architect at RENIEC, Peru
María Luisa Centeno Sánchez, Chemical Pharmacist at Cleaning and Beauty Products, Founder of Cleaning and Beauty Products, Beau Pharm
Milagros Huachillo Alvarado, Business Process Manager at BeauPharm, Founder of BeauPharm, and VousConseil, Senior Process Architect at RENIEC, Peru

ID 82  Historical Basket Analysis of Maintenance Material Requests: Optimizing Delivery and Stocking of Parts using Association Rules
Leonardo Gabriel Hernández Landa*, Argelia Vargas Moreno, René Jair Garza Rojas and Ana Karen Chavez Arechiga, Department of Industrial engineer and management, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

ID 291  Predicting Steel Plate Fault Detection by Metaheuris tic-Optimized Multi-Level Classification Machine Learning
Jui-Sheng Chou, Chair Professor and Dean for General Affairs, National Taiwan University of Science and Technology, Taipei, Taiwan
Trang Thi Phuong Pham, Graduate Research Assistant, National Taiwan University of Science and Technology, Taipei, Taiwan

ID 130  Design of Assessment of Customer Order Acceptance Using Multiple Criteria Decision Analysis Method in Companies Using Make-To-Order Systems
Andi Nugraha and Maya A. Puspasari, Department of Industrial Engineering, University of Indonesia, Depok, Jawa barat, Indonesia

ID 110  Subcontractor Selection Criteria Development on Supply Chain Management in Engineering Procurement Construction Company
Made Dimas Agung Perwira and Arian Dhini, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia

ID 239  Developing an Entrepreneurial Small Business’ Strategic Plan by Shortened Systematic Strategic Planning (SSP)
Dr. Hakan Butuner, Associate Professor, Executive MBA Program Director, TED University, Turkey

ID 69  A Review of Agri-food Supply Chain Management: Case of Small Farmers
Sara Amar, Industrial Management Department, Liwa College of Technology, Abu Dhabi, United Arab Emirates
ID 289 An evaluation of the performance of a safe insulin supply chain through the AHP-TOPSIS model
Mona Haji, Logistics and Supply Chain Management Department, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ID 132 An integrated decision-making approach for prioritizing the suppliers
Ajay Kumar V R, M-Tech Student and Instructor grade I (SCT college of Engineering), College of Engineering Trivandrum, India
Vineetha S Das and Kaviyal E G, Professor in Department of Mechanical Engineering, College of Engineering Trivandrum, India
Assistant professor Department of Mechanical Engineering, SCT college of engineering Trivandrum, India

ID 288 Drugs and Food Anti-counterfeiting Technologies Combating Counterfeiting: A Systematic Review
Mona Haji, Logistics and Supply Chain Management Department, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ID 147 Supply Chain Optimization for Cement Manufacturing Industry to Maximize Contribution and Minimize Cost
Vishwadeep Devanand Daware, Department of Manufacturing Engineering and Industrial Management, COEP Technological University, Pune, India
Dr. M. N. Shaikh, Assistant Professor, Department of Manufacturing Engineering and Industrial Management, COEP Technological University, Pune, India

ID 102 Optimization of purchasing processing time
Hayet ben hamida, Liwa College of Technology, Abu Dhabi, United Arab Emirates

ID 244 A Comprehensive Study on The Significance of Enthalpy and Entropy Diagram in Analyzing Thermodynamic System
Dev Kohiya, Preet Rupapara, Kruti Dharsandiya, Khushi Surti and Prince Pansuriya, Department of Computer Science and Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India

ID 329 A Review on Existing Studies on Thermal Simulation and Future of LNG Based IC Engine
Bhavan Malhotra, Mechanical engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

ID 330 Review on environmental impacts of diesel and LNG based and IC Engine
Karm Patel, B. Tech Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

ID 100 Applications of Industry 4.0 in Supply Chain Management: A Systematic Literature Review
Arvin Shadravan and Hamid R. Parsaei, Wm Michael Barnes '64 Department of Industrial & Systems Engineering, Texas A&M University College Station, Texas, USA

ID 245 A Comprehensive Study on The Significance of Enthalpy and Entropy Diagram in Analyzing Thermodynamic System
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IEOM Houston Conference  PARALLEL SESSIONS  June 12-15, 2023

Mlungisi Ntombela and Musasa Kabeya, Durban University of Technology, Durban, South Africa

ID 216  Embedding Social Determinants of Health into Ambulatory Clinic Standard Work
Susan Seidensticker, University of Texas Medical Branch, Director, Community & Population Health, Galveston, Texas, USA
Rebecca Castro, University of Texas Medical Branch, Manager, Ambulatory Social Work, Galveston, Texas, USA

12:00 – 1:45 pm, MONDAY, June 12  Manufacturing  Virtual Room 5
Session Chair: Aamar Shabir, Department of Electrical and Computer Engineering, Florida Polytechnic University, Lakeland, Florida, USA

ID 180  Distributed Generator Placement and Sizing for Power Transmission Network Modification Using Artificial Intelligent Algorithm
Mlungisi Ntombela and Musasa Kabeya, Durban University of Technology, Durban, South Africa

ID 52  Designing QCD JIGs Risk Mitigation Strategies in Electronics Manufacturing Companies by Combining House of Risk (HOR) and Lean Manufacturing Tools Methods
M Khoirul Khuluk and T Yuri M Zagloel, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Salemba, Indonesia

ID 138  The Heuristic Methods for Scheduling Production with Unrelated Parallel Machine, and Job- and Machine-Sequence-Dependent Setup Time
Prasal Soeurn, School of Manufacturing Systems and Mechanical Engineering (MSME), Sirindhorn International Institute of Technology, Thammasat University, Pathum Thani, Thailand
Pham Duc Tai, School of Manufacturing Systems and Mechanical Engineering (MSME), Sirindhorn International Institute of Technology, Thammasat University, Pathum Thani, Thailand
Jirachai Buddhakulsomsiri, School of Manufacturing Systems and Mechanical Engineering (MSME), Sirindhorn International Institute of Technology, Thammasat University, Pathum Thani, Thailand

ID 295  Visual Inspection system using image sensor in manufacturing Industry
Nisarg Ishvarbhai Patel, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
Dr.M.B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

12:00 – 1:45 pm, MONDAY, June 12  Automation and Control  Virtual Room 6
Session Chair: S M Shakil, Department of Electrical and Computer Engineering, Florida Polytechnic University, Lakeland, Florida, USA

ID 416  Impact of Heat-Treatment on Wear Behaviour of Stainless Steel Printed using Laser Powder Fusion Bed
Pooja Angolkar, Research Scholar, Department of Mechanical Engineering, JNTU Hyderabad, India
M. Manzoor Hussain, Professor in Mechanical Engineering and Registrar, Jawaharlal Nehru Technological University, Hyderabad, India

ID 296  Automatic Process Control Valves in Floating Dry Docks
Soham Kewalramani, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India
M. B. Kiran, Associate Professor, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

ID 281  Machine Control using Sequenced Output Generation Supervised by Machine Learning
Hamid, University of Windsor, Canada

June 12, 2023 (Monday) - Session: 2:00 – 3:00 pm

2:00 – 3:00 pm, MONDAY, June 12  Plenary Speaker  Virtual Room 1
Foad H Khanli
Director of Quality Assurance, Performance and Business Improvement
Amor Health Services, Inc.
Brownsville, Texas, USA

Application of Hoshin Kanri to accelerate Lean Six Sigma implementation in Healthcare

June 13, 2023 (Tuesday)
June 13, 2023 (Tuesday) - Session: 8:00 – 9:45 am

8:00 – 9:45 am, TUESDAY, June 13
Plenary Speakers
Onsite Room 1

8:30 am – 9:00 am (Tuesday, June 13)
Dr. Mohammad Ichsan, PMP, PMI-SP
Assistant Professor
Faculty Member of Binus Business School (AACSB Accredited)
Undergraduate Program
Bina Nusantara University
Jakarta, Indonesia

8:30 am – 9:00 am (Tuesday, June 13)
Dr. Muhammad Fauzan
Director of Human Capital and Legal
PT Hutama Karya (Persero)
Indonesia

9:00 am – 9:30 am (Tuesday, June 13)
Nazmul Hossain
Engineer at Axiscades Inc.
CFD Engineer at Caterpillar Cooling Performance Simulation team
Houston, Texas, United States

8:00 – 9:45 am, TUESDAY, June 13
Women in Industry and Academia (WIIA) Panel
Onsite Room 2

Panel Chair
Dr. Johanna Trujillo Díaz
Titular-II Professor at Business Administration
Support of Vice-Rectory for Research
Fundación Internacional De La Rioja (UNIR)
Bogotá, Colombia

Panelists

8:00 – 9:45 am, TUESDAY, June 13
Onsite Competition Presentations
Onsite Room 3

UNDERGRADUATE STUDENT PAPER COMPETITION
ID 284 Improvement of the Internal Audit Planning System in an IT Company through Predictive Analytics
Patricio Alejandro Zamora Navarro, Rafael Alejandro Ruiz Miller, Roberto Serna Zuazua, José D. Morcillo, Ph.D., Escuela de Ingeniería y Tecnologías, Universidad de Monterrey, México

UNDERGRADUATE RESEARCH COMPETITION
ID 367 Motion and Time Study for Increasing Efficiency, Productivity, and Safety for an Unloading Facility
Matthew Lovelady, Nickolas Tramel and Tanner Funderburk, Industrial Engineering Technology Graduates, Department of Engineering Technology Northwestern State University, Natchitoches, LA 71497, USA
Md. Shahriar J. Hossain, Interim Department Head and Assistant Professor, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71497, USA
Nabin Sapkota, Associate Professor, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71497, USA

HIGH SCHOOL STEM POSTER COMPETITION
ID 232 The Gendered World of Advertising: A Microeconomic Review
Alina Zhong, Stanford Online High School, Redwood City, CA 94063, USA

8:00 – 9:45 am, TUESDAY, June 13
Sustainability
Virtual Room 4

Session Chair: Khristian Edi Nugroho SOEBANDRIJA, Industrial Engineering Department, Bina Nusantara University, Jakarta, Indonesia

ID 189 Carbon Capture and Sequestration in The Energy Transition
Moses Jeremiah Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban, South Africa
ID 252 - Factors Affecting the Consumers’ Willingness to Pay for Sustainable Fashion Products (Study Case: Natural Dyed Batik)

Almira Zana Pratama, Master Program of Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia
Eko Liliyudianto, Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia
Eko Pujianto, Industrial Engineering Department, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia

ID 187 - Indicators of Sustainable Energy and Electricity

Moses Jeremiah Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban, South Africa
Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban, South Africa

ID 185 - Smart Energy Systems and Use of Energy Plan as an Energy and Power Generation Planning Tool

Moses Jeremiah Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban, South Africa
Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban, South Africa

ID 249 - Sustainable Urban Development: A sustainability study of the Doha megacity

Kamal and Md Karib Uddin, CEO and Managing Director, Al-Kabid Steel King and Furniture Ltd. and Karib International, Bangladesh
Khan Mohammad Elyas, Sentence Planning Officer, GIZ Bangladesh, Doha, Bangladesh

ID 146 - Implementation of Lean Manufacturing to Reduce Production Cycle Times and CO2 Emission in Gate to Gate Life Cycle Assessment in the Biodegradable Plastic Industry

Muthia Khadijiah, Industrial Engineering Department, Universitas Indonesia, Depok, Indonesia

ID 349 - Industry 4.0 and its Management vis-à-vis Horizontal and Vertical System Integration

Khristian Edi Nugroho SOEANDRUJA, Industrial Engineering Department, Faculty of Engineering, Bina Nusantara University, Jakarta, Indonesia

8:00 – 9:45 am, TUESDAY, June 13 - Business Management

Session Chair: Gülçin Büyüközkan, Industrial Engineering Department, Galatasaray University, Ortaköy, İstanbul, Turkey

ID 50 - Building a Model for the Detection of Fraudulent Accounting Using Textual Information from the MD&A Section of Japanese Companies

Keisuke Miyago, Natsuki Sato, Ayuko Komura and Hirohisa Hirai, Department of Industrial Engineering and Management, Kanagawa University, Kanagawa, Japan

ID 49 - Impact of Working Capital Management on Future Profitability in Japanese Companies

Koshiro Shiba, Ayuko Komura and Hirohisa Hirai, Department of Industrial Engineering and Management, Kanagawa University, Kanagawa, Japan

ID 114 - Islamic Economics as an Alternative Economy in Facing the Global Economic Recession

Mustafa, Universitas Pamulang & Universitas Muhammadiyah Tangerang, Indonesia

ID 305 - The Effect of Customer Preference Dimensions on User Growth in Lombok Island Mobile Network Service Industry

Ananta Pratama Chrisna Putra, A Student of Faculty of Economics and Business, Telkom University, Faculty of Economics and Business Telkom University, Bandung, Indonesia
Rina Djunita Pasaranu, An Associate Lecturer of Digital Business Strategy Studies, Faculty of Economy & Business, Telkom University Bandung, Indonesia

ID 153 - Autonomy Selection in Self-Driving Vehicles by an Integrated Spherical Fuzzy TODIM

Gülçin Büyüközkan, Industrial Engineering Department, Galatasaray University, Ortaköy, İstanbul, Turkey
Fethullah Göçer, Industrial Engineering Department, Kahramanmaraş Sütçü İmam University, Onikişubat, Kahramanmaraş, Turkey

8:00 – 9:45 am, TUESDAY, June 13 - Quality

Session Chair: Mohd Zamri Mohd Nor, Universiti Teknologi Malaysia (UTM), 81310 Johor Bahru, Johor, Malaysia

ID 211 - Fundamentals of Quality Concept: Literature Review

Zaizoune Marouane and Khadiri Hassan, Laboratory of Industrial Technology, Faculty of Sciences and Technology, University Sidi Mohamed Ben Abdellah, Fes, Morocco
Herrou Brahmi, Superior School of Technology, University Sidi Mohamed Ben Abdellah, Fes, Morocco
Sekkat Souhail, National Superior School of Arts and Crafts, University Moulay Ismail, Meknes, Morocco

ID 113 - Transforming for Sustainability: Total Quality Management and Industry 4.0 Integration with a Dynamic Capability View

Ahmed Baha Eddine Aichouni, PhD Researcher, CEMMARE, Mechanical Engineering Department, University of Coimbra, Coimbra, Portugal
Cristoão Silva, and Luís Miguel D. F. Ferreira, Professor, CEMMARE, Mechanical Engineering Department, University of Coimbra, Coimbra, Portugal

ID 54 - Advanced Statistical Modeling of Severe and Fatal Road Injuries Due to Built Environment Factors

Cristovão Silva, and Luís Miguel D. F. Ferreira, Professor, CEMMARE, Mechanical Engineering Department, University of Coimbra, Coimbra, Portugal

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Sharaf AlKheder, Full Professor of Civil Engineering, Civil Engineering Department, College of Engineering and Petroleum, Kuwait University, P.O. Box-5969, 13060, Safat, Kuwait

ID 139 Performance Analysis of Wind Energy Conversion Systems Integrating the Doubly Fed Induction Generator and the Permanent Magnet Synchronous Generator
Welcome Khulekani Ntuli and Musasa Kabeya, Department of Electrical Power Engineering, Durban University of Technology, South Africa
Gulshan Sharma, Department of Electrical and Electronics Engineering, University of Johannesburg, South Africa

ID 29 Goal Programming Approach for Waterway Transportation System
Akinlo, Durban University of Technology, South Africa

ID 212 The Challenges of Women Sports Leaders in Morocco 'Theoretical Approach'
Khadija MALIKI and Fairouz NAJI, Laboratory of Studies and Research in Economic Sciences and Management (LERSEM), National School of Commerce and Management El Jadida, University of Chouaib Doukkali El Jadida, Morocco

ID 184 Life Cycle Assessment on an Aluminum Patrolling Ship in Malaysia
Mohd Zamri Mohd Nor, Md Mizanur Rahman, Aminuddin Saat, Hasan Mohd Faizal and Mazlan Abdul Wahid, Faculty of Mechanical Engineering Universiti Teknologi Malaysia (UTM), 81310 Johor Bahru, Johor, Malaysia

ID 332 Design of a measurement instrument for the software utility validation using the Resource-Constrained Multi-Project Scheduling Problem (RCMPSP)
Johanna, Fundación Universitaria Internacional de la Rioja, Colombia

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June 13, 2023 (Tuesday) - Session: 10:00 am – 1:00 pm – Onsite Room 1

Keynote Speakers

10:00 Welcome Address:
Professor Hamid Parsaei, Ph.D., PE, Fellow, ISE, ASEE, SME, IEOM
Professor, Department of Industrial and Systems Engineering Director, College of Engineering Accreditation and Assessment Texas A&M University, College Station, Texas, USA
IEOM President, 2021-2023; IEOM Vice President, 2019-2021

10:20 Keynote I (Day 1 Opening Keynote):
Dr. Satish Bukkapatnam
Professor, Industrial & Systems Engineering, Rockwell International Professor, College of Engineering and Director, TEES Institute for Manufacturing Systems, Texas A&M University, College Station, Texas, USA

11:00 Keynote II:
Vivek Anand, PhD
Vice President & Head of Technology, Deloitte Consulting, Houston, TX, USA

11:40 Keynote III:
Mark A. Bolen
VP of Quality, Engineering & Fleet, Cintas Corporation, Lebanon, Ohio, United States

12:20 Keynote IV:

1:00 Buffet Lunch

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June 13, 2023 (Tuesday) - Session: 2:00 – 3:45 pm

2:00 – 3:45 pm, TUESDAY, June 13
Global Engineering Education I
Onsite Room 1

Session Chair: Anjum Ali, Ph.D.
2:00 pm - 2:30 pm (Tuesday, June 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

2:30 pm - 3:00 pm (Tuesday, June 13)

Dr. Devinder Kumar Banwet FIE  
Vice Chancellor Founding Retd  
University of Engineering & Management  
Kolkata India  
Professor Emeritus, DMS, IIT Delhi (India)

3:00 pm - 3:30 pm (Tuesday, June 13)

Louis H. Iselin  
CTE/STEM Engineering and Robotics Instructor  
Cypress Park High School  
Cypress, Texas, United States

3:30 pm – 4:00 pm (Tuesday, June 13)

Soban Jalil  
Senior Program Manager  
Wabtec Corporation  
Houston, Texas, United States

2:00 – 3:45 pm, TUESDAY, June 13  
Onsite Room 2

Industry 4.0 Panel

Panel Chair

Dr. Hayder Zghair  
Assistant Professor of Industrial Engineering  
Director of Industrial Engineering Development  
College of Science and Engineering  
Southern Arkansas University  
Magnolia, Arkansas, USA

Panelists

Panelist – I

Dr. Tom Jones  
Continuous Improvement Industrial Engineer  
Department of Operational Excellence  
Leonardo DRS  
Melbourne, Florida, United States

Panelist – II

Alper Senol  
Professor- Supply Chain Management  
Miami Dade College  
Miami, Florida, United States

Panelist – III

Dr. Galia Novaikova Nedeltcheva  
Scientific Researcher  
ICT & Digital Transformation  
Polytechnical University of Milan  
Italy

Panelist – IV

Dr. Doga Demirel  
Assistant Professor of Computer Science  
Director of Virtual Reality, Interactive Simulation, and Biomedical (VRISB) Lab  
Florida Polytechnic University  
Lakeland, Florida, USA
ID 196  Mitigating Organizational and Operational Impediments to Innovation: An Integrated Systems Approach
Melinda L. Tourangeau, RVJ Institute, New Hampshire, United States
Adedeji B. Badru, Air Force Institute of Technology, Dayton, Ohio, United States

ID 182  Alternative Objective Function in Planning and Scheduling
Zibo Lin, Genesis Agbo, Jessica Florencio, Salome Pansutulaya, Tamunodiyepiriye Bestman and Odile Bellenguez, IMT Atlantique Nantes France, France

ID 112  Three waves of COVID-19 in India-An Autoregression Model
Radha Gupta, Professor and Head, Department of Mathematics, Dayananda Sagar College of Engineering, Bangalore, Karnataka, India
Nethravathi N, Research Scholar, Department of Mathematics, Dayananda Sagar College of Engineering, Bangalore, Karnataka, India
Kokila Ramesh, Assistant Professor, Department of Mathematics, Faculty of Engineering and Technology, Jain University, Bangalore, Karnataka, India

ID 300  Web-based Metaheuristic-Optimized Machine Learning System for Engineering Informatics
Jui-Sheng Chou, Chair Professor and Dean for General Affairs, National Taiwan University of Science and Technology, Taipei, Taiwan
Jeffisa Delaosia Kosasih, Graduate Research Assistant, National Taiwan University of Science and Technology, Taipei, Taiwan

ID 28  Framework for Developing Interactive Dashboards and Evaluating Their Usage Effectiveness: A Case Study
Farah Altarazi and Daryl Santos, Systems Science and Industrial Engineering Department, The State University of New York at Binghamton New York, USA
Albert Tomchesson, Foxconn Industrial Internet, Houston, TX, USA

ID 144  Supply Chain Agility and Organization Performance: A Resource Based View
Syed Imran Zaman, School of Economics and Management, Southwest Jiaotong University, Chengdu, China and Department of Business Administration, Jinnah University for Women, Karachi, Pakistan
Sharfuddin Ahmed Khan, Industrial Systems Engineering, University of Regina, Regina, Canada
Sherbaz Khan, Department of Supply Chain and Logistics, Institute of Business Management, Karachi, Pakistan

ID 287  Role of Technology in the Performance Measure of Insulin Cold Chains
Mona Haji, Logistics and Supply Chain Management Department, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ID 25  The Risk Management for Infant Formula Milk Supply Chain based on AHP Model for Risk Mitigation and Maximize the Safety
Mona Haji, Logistics and Supply Chain Management Department, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ID 341  The Role of Supply Chain Management in Improving Food Quality, Drug Safety, and Public Health
Mona Haji, Logistics and Supply Chain Management Department, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ID 215  Advancing Humanitarian Logistics Design through Linguistic Decision-Making based Quality Function Deployment
Gülçin Büyüközkan, Professor, Department of Industrial Engineering, Galatasaray University, Ortaköy, Istanbul, Turkey
Deniz Uztürk, Department of Management, Business Research Center, Galatasaray University, Ortaköy, Istanbul, Turkey

ID 27  Reverse Logistics as a Way to a Sustainable Transformation in Organizations: A Literature Review
Marquina Giovanni, Bachelor, Industrial Engineering, University of Lima, Lima, Perú
Vargas Alejandro, Bachelor, Industrial Engineering, University of Lima, Lima, Perú

ID 56  Transitioning Towards Ecological Approaches in Supply Chain Management: A Delphi Study
Pouneh Arbiabi, Anne Touboulic and Anshuman Chutani, University of Nottingham Business School, University of Nottingham, Nottingham, United Kingdom

June 13, 2023 (Tuesday) - Session: 4:00 – 5:45 pm

4:00 – 5:45 pm, TUESDAY, June 13  Engineering Education  Onsite Room 1

Global Engineering Education II

ID 80  Analysis of the Technological Maturity Level of Industrial Engineering Students
Daniela del Carmen Bacre-Guzmán, María de los Ángeles Martínez-Mercado, Azucena Minerva García-León and Nury Margarita Leal-Rendón
Professor, School of Chemical Science, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

ID 208  You can't hide behind the screen forever; The necessity of Foundational Skills in STEM careers
E Shirl Donaldson, University of Michigan Flint, United States

ID 131  Embedding Professional Development Courses in Curriculum
### June 13, 2023 (Tuesday)

1. **Onsite Room 2**

#### Human Factors and Ergonomics Panel - Maintenance and Reliability

**Panel Chair**

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

2. **Onsite Room 3**

#### Six Sigma Certification Workshop

**Speaker:** Dr. Ahad Ali, LTU, MI

3. **Virtual Room 4**

#### Technical Presentations

**Session Chair:** Mohamed A. Awwad, California Polytechnic State University, San Luis Obispo, 93407, California, USA

- **ID 321**  
  Enhancing Disaster Management through Effective Warehouse Location Selection using Linguistic Decision Making: An Integrated Approach  
  Gülçin Büyüközkan, Professor, Department of Industrial Engineering, Galatasaray University, Ortaköy, Istanbul, Turkey  
  Deniz Uztürk, Department of Management, Galatasaray University, Ortaköy, Istanbul, Turkey

- **ID 149**  
  Strategic Analysis of Digital Technologies in the Healthcare Sector through the Application of Multiple Preference Relations Combined SWOT Analysis  
  Gülçin Büyüközkan and Öykü Ilıcak, Department of Industrial Engineering, Faculty of Technology and Engineering, Galatasaray University, Istanbul, Turkey

- **ID 235**  
  A Study on Alternative Learning for Materials Engineering Students  
  Erika Szaldobagyi and Mohamed A. Awwad, Department of Industrial and Manufacturing Engineering, California Polytechnic State University  
  San Luis Obispo, 93407, California, USA

- **ID 423**  
  An Initial Exploration of Patterns of Variation in Healthcare Provider Reimbursement Rates from a Massive New Dataset  
  Jim Dewey and Susan LeFrancois, Florida Polytechnic University, 4700 Research Way, Lakeland, Florida 33805, USA

### June 14, 2023 (Wednesday)

#### June 14, 2023 (Wednesday) - Session: 8:00 – 9:30 am

1. **Onsite Room 1**

#### Global Business Management and Global Project Management

- **8:00 – 8:20 am, June 14**
  Ajairaj Selvaraj (PMP)  
  Project Engineer  
  JSW Steel  
  Houston, Texas, United States

- **8:20 – 8:40 am, June 14**
  David Giraldo  
  Principal Data Analytics Consultant  
  Simple BI Inc.  
  Houston, Texas, United States
8:00 – 9:40 am, WEDNESDAY, June 14

Onsite Room 2

Global Supply Chain and Logistics Panel

Panel Chair
Shahram Taj, Ph.D.
Chair and Professor, Department of Data Science & Business Analytics
Chair, Department of Computer Science
Florida Polytechnic University
Lakeland, Florida, USA

Panelists
Panelist – I
Michael Ehsani (MBA, DBA)
Global Quality Director
Arcadis
Houston, Texas, USA

Panelist – II
Dr. Milad Talebzadehossaeini
Visiting Assistant Professor
Department of Data Science and Business Analytics
Florida Polytechnic University
Lakeland, Florida, USA

Panelist – III
Dr. Mohamad Nayebpour
Visiting Assistant Professor
Marilyn Davies College of Business
University of Houston–Downtown (UHD)
320 N Main St, Houston, TX 77002, USA

Panelist – IV
Manohar S. Madan, PhD
Professor
ITSCM Department
University of Wisconsin-Whitewater
Whitewater, WI – 53190

8:00 – 9:45 am, WEDNESDAY, June 14
Operations Research
Onsite Room 3

Session Chair: Balachandra Patil, Department of Management Studies, Indian Institute of Science, Bengaluru -560012, India

ID 2 A New Formulation of Quadratic Assignment Problem (QAP)
RRK Sharma, Department of IME IIT Kanpur, 208016, India
Ebisa D Wollega, School of Engineering, Colorado State University Pueblo, Pueblo, CO 81001, USA

ID 238 Multicriteria Usability Evaluation of Websites Offering Road Freight Transport
Carlos Emamí Fries and Fernanda Christmann, Department of Industrial and Systems Engineering, Federal University of Santa Catarina, Florianópolis, SC Brazil

ID 237 A Multi-Criteria Evaluation Model of the Usability of Websites Offering Road Cargo Freight
Carlos Emamí Fries and Fernanda Christmann, Department of Industrial and Systems Engineering, Federal University of Santa Catarina, Florianópolis, SC Brazil

ID 6 A New Approach for solving Simple Plant Location Problem (SPLP)
R.R.K. Sharma, Industrial & Management Engineering, IIT Kanpur, India
Ajay Jha, Jaipuria Institute of Management, Lucknow, India
Abhay Pratap Singh, Industrial & Management Engineering, IIT Kanpur, U.P., India

ID 77 Modelling Electricity System Transition – a Comparison of Two Supply-mix Scenarios
Varun Jyothiprakash, P Balachandra and Abhishek Das, Department of Management Studies, Indian Institute of Science, Bengaluru -560012, India
Samridh Sharma, Inter-Disciplinary Centre for Energy Research, Indian Institute of Science, Bengaluru– 560012, India
ID 106 Investigating the Role of Geriatrics Pharmacies in the Healthcare Supply Chain
Marawan Mostafa, Ahmed Elmasry and Sara Elzarka, International Transport & Logistics Institute, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

8:00 – 9:45 am, WEDNESDAY, June 14   Production Planning and Management   Virtual Room 4
Session Chair: María de los Ángeles Martínez-Mercado, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, NL, México

ID 248 A Comparison of the Weighted Product (WP), Simple Additive Weighting (SAW), and Technique for Order Preference by Similarity to the Ideal Solution (TOPSIS) Approaches for Optimization Product Distribution
Roy Fandy Gultom, Industrial Engineering Masters Study Program, University of Indonesia, Indonesia

ID 72 Planning of Supplier Selection in Multisource Strategy Using Delphi, AHP, and TOPSIS
Aga Ferdiansyah and Dendi P. Ishak, Industrial Engineering Department, Engineering Faculty, University of Indonesia, Jakarta, Indonesia

ID 297 Quality Analysis on PVC Extrusion Machine
Ritesh Gajjar, Department of Mechanical Engineering, School of Technology, Pandit Deendayal Energy University, Gandhinagar, India

ID 203 Aligning Manufacturing Flow Control Techniques with the product-process matrix: A review for research
Olufemi Adetunji, Department of Industrial and Systems Engineering, University of Pretoria, Pretoria 0002, South Africa

ID 58 Application of Material Requirement Planning (MRP) and Mixed Integer Linear Programming (MILP) Methods and Reverse Logistics in Realizing Material Shortage Prevention in the Gold Jewelry Industry
Sekar Nadiyah and T Yuri M Zagloel, Faculty of Engineering, Universitas Indonesia, Salemba 10430, Indonesia

ID 179 Fifth Generation Wireless Network Usage in the Operations of the Food Industry: Barriers and Benefits
Adetola Adeniyi, Master's candidate, cidb Centre of Excellence, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

ID 339 Developing Competency Standard for Solar PV Off Grid Capacity Building in Indonesia
Adie Erar Yusuf, CBDC, University of Bina Nusantara, Jl. Anggrek Raya Npo. 41 Kebon Jeruk Jakarta 11480, Indonesia

ID 78 Study of the Overall Equipment Effectiveness of a Cutting Process through a Digital Format
Naniek Rahmawati, GIZ Consulting, Kantor Perwakilan GIZ di Indonesia Menara BCA, Level 46 Jl. M.H. Thamrin No. 1 Jakarta 10310 Indonesia

ID 183 Impact of Poor Feasibility Analysis and COVID19 on the Outcome of Extension of Production Plant
Hafiz Anwar Ul Haq, Deputy Director at National Institute of Banking and Finance, State Bank of Pakistan, Pitrus Bukhari Road, Sector H-8/1 Islamabd, Pakistan

ID 246 Performance Evaluation of a Solar Chimney at the Presence of Cold Inflow
Md. Mizanur Rahman and Farhan Mahbub, Mechatronics Engineering Department, World University of Bangladesh (WUB), Avenue 6 & Lake Drive Road, Sector: 17/H, Uttara, Dhaka – 1230, Bangladesh

ID 192 Present and Future Commercial Applications of Carbon Nanotubes: A Review
Madha Mazhar, Dept. of Chemistry and chemical Engineering, Lahore University of Management Sciences, Lahore, Pakistan

ID 75 Factors Affecting the User Acceptance of Electric Motorcycle in Indonesia Using Unified Theory of Acceptance and Use of Technology 2 (UTAUT2)
Made Nindya Kirana, Farizal and Rahmat Nurcahyo, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia Depok, Jawa Barat, Indonesia
8:00 – 9:45 am, WEDNESDAY, June 14  
Education and Research  
Virtual Room 6

Session Chair: Pankaj Chandna, Mechanical Engineering Department, National Institute of Technology Kurukshetra, Haryana, India

ID 57 Behaviorally Anchored Rating Scales: An Application for Teacher Evaluation in a Holistic Higher Education Scenario  
Antony Michael Raj Lourdhuraj, Professor and Principal, Loyola ICAM College of Engineering and Technology, Loyola Campus, Nungambakkam, Chennai – 600034, India

ID 293 Geometric modeling and Fluid Flow simulation of IC Engine- A Review  
Kalpit Patel, (19BME057), Pandit Deendayal Energy University, Gandhinagar, Gujarat, India

ID 193 Happy Campus: How to make Universities a Better Place to Work and Study in INDIA  
Dr. G P Dinesh, Professor, VSK University, Ballari, India  
Dr. DivyaBharathi, Associate Professor, BITM, Ballari, India

ID 301 Optimized Hybrid System for Financial Time-Series Prediction  
Jui-Sheng Chou, Chair Professor and Dean for General Affairs, National Taiwan University of Science and Technology, Taipei, Taiwan  
Thi-Kha Nguyen, Faculty of Engineering and Agriculture, The University of Danang - Campus in Kontum Kontum, Vietnam

ID 46 Supplier Performance Measurement and Evaluation System for Flexible Packaging Industry with Integration of DEMATEL Method and Analytical Network Process  
Bonita and T Yuri M Zagloel, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Salemba 10430, Indonesia

ID 81 Optimization of FSP Parameters for Surface Properties of Al/TiC Composite Using Taguchi-Grey-Relational-Analysis  
Pankaj Chandna, Professor, Mechanical Engineering Department, National Institute of Technology Kurukshetra, Haryana 136119, India  
Raman Chouhan and Pawan Bishnoi, Research Scholar, Mechanical Engineering Department, National Institute of Technology Kurukshetra, Haryana 136119, India

June 14, 2023 (Wednesday) - Session: 10:00 am – 1:00 pm

Keynote Speakers

10:20 Keynote V:  
Dr. Gino Lim  
R. Larry and Gerlene (Gerri) R. Snider Endowed Chair and Professor & Chair, Department of Industrial Engineering, University of Houston – University Park, Houston, Texas, USA

11.00 Keynote VI:  
José Rivera  
Chief Admin Quality Officer, MD Anderson Cancer Center, Houston, Texas, United States

11:40 Keynote VII:  
Dr. Robert Swearingen  
Head of Strategic Sourcing and Supply Chain Management, Siemens GCI, Texas, USA

12:20 Keynote VIII:  
Dr. Luis Rabelo  
Professor, Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, FL, USA

1:00 Buffet Lunch

June 14, 2023 (Wednesday) - Session: 2:00 – 3:45 pm
Industry Solutions and Industry 4.0 I

Session Chair: Ms. Kayla Buczkowski

2:00 pm – 2:20 pm (Wednesday, June 14)

Yanesh Naidoo
Owner, Executive Innovations Director & Member of the Board at Jendamark
22’ Africa Technology Company of the year
Port Elizabeth, Eastern Cape, South Africa

2:20 pm – 2:40 pm (Wednesday, June 14)

Ms. Kayla Buczkowski
Applications Service Engineer
A&D Technology
4622 Runway Blvd
Ann Arbor, MI 48108

**ID 115  A Lean Six Sigma Evaluation to Improve a Manufacturing Validation Process**

Kayla J. Buczkowski, Applications Service Engineer at A&D Technology and Masters of Engineering Management and Masters of Industrial Engineering, Candidate of the College of Engineering, Lawrence Technological University, Southfield, MI 48075, USA

2:40 pm – 3:00 pm (Wednesday, June 14)

Aaron Rubel, M.S.E.M.
Head of Aircraft Maintenance Programs Development
Intellectual Property Focal Point
Airbus Americas, Inc.
Mobile, Alabama Engineering Center
Mobile, AL 36615, USA

3:00 pm – 3:40 pm (Wednesday, June 14)

Data Analytics Panel

**Panel Chair**

Dr. Ying Lin
Assistant Professor
Industrial Engineering Department
Director, Smart Health & Intelligent Engineering Systems (SHINES) Lab
University of Houston
Houston, Texas, USA

Panelists

Panelist – I

Assaf Gottlieb, PhD
Assistant Professor
UTHealth School of Biomedical Informatics (SBMI)
Houston Texas Medical Center
Houston, TX 77030

Panelist – II

Dr. Meng Li
Associate Professor, Bauer Fellow
SCM PhD Coordinator
C.T. Bauer College of Business
University of Houston
Houston, Texas, USA

Panelist – III

Dr. Rei Sanchez-Arias
Assistant Professor of Data Science
Assistant Chair of the Department of Data Science and Business Analytics
Florida Polytechnic University
Panelist – IV
Dr. Hrayer Aprahamian
Assistant Professor, Industrial & Systems Engineering
Wm Michael Barnes ’64 Department of Industrial & Systems Engineering
Texas A&M University
College Station, Texas, USA

2:00 – 3:45, WEDNESDAY, June 14
Manufacturing
Onsite Room 3

Session Chair: Farizal, University of Indonesia

ID 42  Analysis of Partial least squares -structural equation modeling (PLS-SEM) in archival, big data, and data mining research- a growing phenomena
Anas, Nelson Mandela University, South Africa

ID 154  Visualizing a Local Food Bank’s Chronic Health Disease Population
Mikaya Hamilton, Steven Jiang and Lauren Davis, Department of Industrial and Systems Engineering, North Carolina Agricultural and Technical State University, 1601 E Market St., Greensboro, NC 27411, United States

ID 126  Rethinking PERT-Beta Distribution: A Systematic Evaluation of PERT RNG Models in Project Risk Simulation
Byung-Cheol “BC” Kim, Associate Professor in Project and Supply Chain Management, Black School of Business at Penn State Behrend, Erie, Pennsylvania, USA

ID 148  Role of Green Supply Chain Practices in Improving Firm’s Sustainability and Performance
Sherbaz Khan, Department of Supply Chain and Logistics, Institute of Business Management, Karachi, Sindh 75190, Pakistan
M. Affan Badar, Bailey College of Engineering and Technology, Indiana State University, Terre Haute, IN 47809, USA
Sharfuddin Ahmed Khan, Industrial Systems Engineering, University of Regina, Regina, SK S4S 0A2, Canada
Syed Imran Zaman, Department of Business Administration, Jinnah University for Women, Karachi, Sindh 74600, Pakistan

ID 40  Online 2 + 2 + 2 Technology Programs for Upward Mobility
Raj Desai, Chair, McCoy School of Engineering, Midwestern State University, Wichita Falls, Texas, USA

ID 191  Turret Punch Time Estimate for Sheet Metal Parts using Machine Learning Approach
Yearn-Tzuo (Andrew) Hwang, Assistant Professor, Department of Mechanical Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan
Ting-Yi Zhang, and Hung-Chun Hsu, Graduate Students, Department of Mechanical Engineering, National Yang Ming Chiao Tung University Hsinchu, Taiwan

ID 241  Centralized and Decentralized Organizational Structure: The Impact on Employee Satisfaction and Performance
Aaron Rubel, Fellow, IEOM Society International, Southfield, Michigan 48076, USA
Department of Engineering Management & Systems Engineering, Old Dominion University, Norfolk, VA 23529, USA

2:00 – 3:45, WEDNESDAY, June 14
Productivity
Virtual Room 4

Session Chair: S. Bharath Sankar, Department of Management Studies, Indian Institute of Science (IISc), Bangalore, Karnataka, India

ID 103  Noise Pollution in Townhouse Communities
Adnan Nadeem, Department of Civil Engineering, National University of Computer & Emerging Sciences (NUCES), FAST Lahore Campus, Pakistan
Saman Shahid, Department of Sciences & Humanities, National University of Computer & Emerging Sciences (NUCES), FAST Lahore Campus, Pakistan
Shahid Ali, Department of Civil Engineering, National University of Computer & Emerging Sciences (NUCES), FAST Lahore Campus, Pakistan

ID 111  A Hybrid NSGA-II Approach to Resolve a Bi-Objective Multi-Period Assembly Inbound Inventory Routing Problem
Satya Prakash and Indrajit Mukherjee, Shailesh J. Mehta School of Management, Indian Institute of Technology, Bombay-400076, India

ID 79  Application of The Abc Methodology to Reduce the Delay of Sales Orders in A Company Warehouse in Barranca City
Joe, Universidad de Lima, Peru

ID 22  Artificial Neural Network (ANN) Assisted Simulated Annealing Algorithm for Dynamic Scheduling of Burn-in Ovens with Machine Eligibility Restriction
Dhaval Pujara and Muthu Mathirajan, Department of Management Studies, Indian Institute of Science (IISc), Bangalore, Karnataka 560012, India

ID 204  From the foundational theories to the prospects of the DDMRP: A review and research agenda
Olufemi Adetunji, Department of Industrial and Systems Engineering, University of Pretoria, Pretoria 0002, South Africa

ID 255  Internal Logistics Improvement of Automotive Parts in an Assembly Plant
Patipath Maneerath, Master of Engineering Program in Industrial Engineering Chulalongkorn University, Bangkok 10330, Thailand

ID 71  Modelling the impact of data from scouting robots on fresh food supply chains
Shantha Lakshmi Belawadi Nagaraja Swamy, Research Officer, Essex Business School, University of Essex, Southend Campus, Southend-on-Sea SS1 1LW, UK
ID 23  A Pareto Analysis of Critical Success Factors of Lean Production System
S. Bharath Sankar and Muthu Mathirajan, Department of Management Studies, Indian Institute of Science (IISc), Bangalore, Karnataka, India

June 14, 2023 (Wednesday) - Session: 4:00 – 5:45 pm

Industry Solutions and Industry 4.0 II

Session Chair: Abdul Rahman Saddiq

4:00 pm – 4:20 pm (Wednesday, June 14)
Rachel Stanford
Center Quality Manager
SLB
Houston, Texas, USA

4:20 pm – 4:40 pm (Wednesday, June 14)
Jerel Scrutchin, MBA
Executive Consultant – Manufacturing
SBTI
Pearland, Texas, United States

4:40 pm – 5:00 pm (Wednesday, June 14)
Abdul Rahman Saddiq
Senior Associate, Predictive Diagnostics
EDP Renewables
Houston, Texas, United States

5:00 pm – 5:20 pm (Wednesday, June 14)

5:20 pm – 5:40 pm (Wednesday, June 14)

Using Assessment to Improve Student Learning and Curriculum – Panel

Panel Chair
Professor Abu Masud, Ph.D., P.E.
Professor Emeritus
Department of Industrial and Manufacturing Engineering
Wichita State University
Kansas, USA

Panelists:

Panelist – I
Dr. Adedeji Badiru
Dean
Graduate School of Engineering and Management
Air Force Institute of Technology
Wright-Patterson AFB
Ohio, USA

Panelist – II
Professor Hamid Parsaei, Ph.D., PE
Fellow, ISEE, ASEE, SME, IEOM
Professor, Department of Industrial and Systems Engineering
Director, College of Engineering Accreditation and Assessment
Texas A&M University
College Station, Texas, USA
IEOM President, 2021-2023; IEOM Vice President, 2019-2021

Panelist – III

Panelist – IV
4:00 – 5:45, WEDNESDAY, June 14  
Optimization  
Onsite Room 3

Session Chair: Hernando Garzón Saenz, Fundacion Universitaria Tecnologico Comfenalco, Cartagena de Indias, Colombia

**ID 355** Workflow Improvements and Workplace Redesign for an Office Space  
Alexander Makarewich and Mason Pitts, Industrial Engineering Technology Graduates, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71497, USA  
Md. Shahriar J. Hossain, Interim Department Head and Assistant Professor, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71497, USA

**ID 374** Health and Safety Audit to Identify Possible Risk Findings Within the Company Nissin Manufacura De Mexico S.A De C.V  
Josué Abraham and Sánchez Portillo, Universidad Politécnica de San Luis Potosí, Mexico

**ID 350** Product Quality - end to end quality control for consumer electronics  
Rohan Viswanath, Google Inc., United States

**ID 152** Conceptualization of the Servuccion in Outpatient Care in Level 3 Health Companies under Lean Healthcare approach: Case Study  
Hernando Garzón Saenz, CIPTEC Research Group - Faculty of Engineering - Industrial Engineering Program - Technology in Industrial Production Fundacion Universitaria Tecnologico Comfenalco, Cartagena de Indias, Colombia  
Andrés Redchuk, ETSII. Department of Computer Sciences. University Rey Juan Carlos. Madrid. Spain  
Director of Operational Excellence and Process Improvement Institute. School of Engineer., University of Lomas de Zamora. Argentina  
José Manuel Solana Garzón, CIPTEC Research Group- Faculty of Engineering - Industrial Engineering Program - Technology in Industrial Production, Fundacion Universitaria Tecnologico Comfenalco, Cartagena de Indias – Colombia  
Gustavo Adolfo Ortiz Piedrahtla, CIPTEC Research Group- Faculty of Engineering - Industrial Engineering Program - Technology in Industrial Production, Fundacion Universitaria Tecnologico Comfenalco, Cartagena de Indias – Colombia

4:00 – 5:45, WEDNESDAY, June 14  
Technical Presentations  
Online Room 4

Session Chair: Alessandro Crivellaro Martins, Federal University of Paraná, Curitiba, Paraná, CEP: 80210-170, Brazil

**ID 272** 3D printing in construction, mixture characteristics, strength, and thermal performance-Review  
Amaal Al Shenawa and Poonam Mahadev Karoti, Construction Management Department, College of Architecture and Construction Management Kennesaw State University, Marietta, GA, United States

**ID 231** Path optimization of multi-tool drilling using genetic algorithm  
Mohamed B Elnoor, Department of Electrical and Computer Engineering, University of Maryland, College Park, MD 20742, USA

**ID 135** The Cutting Stock Problem with Diameter Conversion in the Construction Industry  
Deniz Altinpulluk and Nur Banu Altinpulluk, Department of Industrial and Systems Engineering, Wayne State University, Detroit, MI 48201, USA  
Haldun Sural, Department of Industrial Engineering, Middle East Technical University, Universiteler Mahallesi, Cankaya, Ankara, Turkey

**ID 370** A Case Study on The Implementation of a Cultural Transformation Program Based on Soft Skills in Industry 4.0 Applied to an Intralogistics Automation Company  
Alessandro Crivellaro Martins, Master’s Degree Student in Management of Organizations, Leadership and Decision, Federal University of Paraná, Curitiba, Paraná, CEP: 80210-170, Brazil

**ID 372** Data Analytics to discover what kind of people are more prone to have Alzheimer's disease?  
Rosa Araceli Centeno Sánchez, Business Process Manager at Cleaning and Beauty Products, Founder of Cleaning and Beauty Products, BeauPharm, and VousConseil, Senior Process Architect at RENIEC, Peru  
Maria Luisa Centeno Sánchez, Chemical Pharmacist at Cleaning and Beauty Products, Founder of Cleaning and Beauty Products, BeauPharm, and VousConseil, Senior Process Architect at RENIEC, Peru  
Milagros Huachillo Alvarado, Business Process Manager at BeauPharm, Founder of BeauPharm, and VousConseil, Senior Process Architect at RENIEC, Peru

**ID 233** A Logistics Planning Tool for E-Waste Collection: Streamlining Sustainability and Efficiency  
Md Mamunur Rahman, University of Wisconsin-Platteville, 1 University Plaza, Platteville, WI 53818, USA  
Ruby Nguyen and Damon Hartley, Idaho National Laboratory, 1955 N Fremont Ave, Idaho Falls, ID 83415, USA  
Sophie Williams, University of Florida, Gainesville, FL 32611, USA

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**June 15, 2023 (Thursday)**

8:00 – 9:45, THURSDAY, June 15  
Onsite Room 1

**SCM Workshop**

Supply Chain 4.0 - the next-generation supply chain practices
Mohammad Anwar Rahman, Ph.D.
Associate Professor, Manufacturing and Construction Management
Central Connecticut State University, New Britain, CT, USA

8:00 – 9:45, THURSDAY, June 15
Onsite Room 2

Lean Six Sigma Panel

Panel Chair
Dr. Jamison Kovach
PMI Houston Endowed Professor in Project Management
University of Houston
Texas, USA

Panelists
Panelist – I
Caitlin McVey MBA, RN, CPHQ, CLSSBB
Associate Vice President
Memorial Hermann Institute for Nursing Excellence
Houston, Texas

Panelist – II
Megan Moore, MBA, CMQ/OE, CSQP, CLSSGB
Director of Quality
Ryerson
Sugarland, Texas

Panelist – III
AJ Harzke, DrPH, MPH, MDiv, LSSBB
Assistant Professor, School of Public & Population Health
Manager, Process Improvement, Correctional Managed Care
University of Texas Medical Branch
Houston, Texas

Panelist – IV
Idris Olakunmi Yusuf, Msc, PMP
IT Professional & Graduate Research Fellow
Texas Southern University
Houston, Texas

8:00 – 9:45, THURSDAY, June 15
Manufacturing
Onsite Room 3

Session Chair: Hedaia Abdullah, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt

ID 217 Affordable Autonomous Vehicles for Deployment After Disastrous Events
Shannon Abolmaali and Erick C. Jones, Jr., Industrial, Manufacturing, and Systems Engineering, The University of Texas at Arlington, USA
Erick. C. Jones, Sr., Dean, College of Engineering, The University of Nevada, Reno, Reno, Nevada, USA

ID 298 Loading-Unloading Simulation Model for System of Manufacturing
Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, 100 E University, Magnolia, Arkansas, 71753, USA

ID 21 Analysis of Hemp Reinforced Composites
Sarina R. Soni, AdTech Systems Research Inc., 1342 North Fairfield Road, Beavercreek, Ohio 45432, USA
Subramania I. Sritharan and Craig Schluttenhofer, Agricultural Research and Development Program (ARDP), College of Engineering, Science, Technology and Agriculture, Central State University, 1400 Brush Row Road, Wilberforce, OH, United States

ID 181 A statistical approach to reduce the manufacturing process qualification cost and sample size
Angad, Google Inc, United States

ID 48 Reducing Inbound and Outbound Logistics Process Cycle Time Using Lean Six Sigma
Ana Branco, Master’s Student in Management of Services and Technology, Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal
Jamison V. Kovach, PMI Houston Endowed Professor in Project Management, University of Houston, Houston, TX, USA
Ana Lúcia Martins, Business Research Unit (BRU-ISCTE), Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal

ID 108 Improving Pediatric Intensive Care Unit Risk Management Using Failure Mode and Effect Analysis
Hedaia Abdullah, Sahar Elbarky, Maha Morsi and Sara Elzarka, International Transport & Logistics Institute, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt
8:00 – 10:00, THURSDAY, June 15

**Engineering Management**

**Virtual Room 4**

**Session Chair:** Guilherme Francisco Frederico, Federal University of Paraná, UFPR School of Management, PR, Curitiba, Brazil

**ID 140** Business Process Reengineering for Regulatory on Radioactive Waste Management in Indonesia

Rizal Palapa, Novandra Rhezza Pratama and Rahmat Nurcahyo, Industrial Engineering Department, Faculty of Engineering, University of Indonesia, Depok, Indonesia

**ID 66** Creating Knowledge Management Strategy for Increasing MRO Employee Industry Capability

Haikal Rastinggi and Novandra Rhezza Pratama, Department of Industrial Engineering, University of Indonesia, Salemba, Indonesia

**ID 55** Knowledge management as a competitive advantage in SMEs: a theoretical exploration

Oscar Alejandro Vásquez-Bernal and Woody Figueroa Peinado, School of Basic Sciences, Technology, and Engineering, Universidad Nacional Abierta y a Distancia UNAD, Bogotá D.C., Colombia

William Eduardo Mosquera Laverde, Faculty of Administrative and Economic Sciences, Universidad Cooperativa de Colombia, Bogotá D.C., Colombia

**ID 199** Product Development for Sustainable of Garment Product - A literature review

Suhartini, Department of Industrial and Systems Engineering, Faculty of Industrial Technology and Systems Engineering, Institut Teknologi Sepuluh Nopember Surabaya, Indonesia

Mohd. Suef, Department of Industrial and Systems Engineering, Faculty of Industrial Technology and Systems Engineering, Institut Teknologi Sepuluh Nopember Surabaya, Indonesia

Udusubakti Ciptomulyono, Department of Industrial and Systems Engineering, Faculty of Industrial Technology and Systems Engineering, Institut Teknologi Sepuluh Nopember Surabaya, Indonesia

Erwin Widodo, Department of Industrial and Systems Engineering, Faculty of Industrial Technology and Systems Engineering, Institut Teknologi Sepuluh Nopember Surabaya, Indonesia

**ID 280** Inventory Cost Management Analysis Using Order Quantity Planning on Cold Rolled Coil Product in Indonesia and Thailand: Digital Price Setting

Martino Wibowo, Postgraduate Program, Faculty of Economics, Universitas Terbuka, South Tangerang, Indonesia

Damrongsaik Hattasat, School of Business, Rajamangkala university of Technology Suvarnabhumi, Phra Nakhon Si Ayutthaya, Thailand

Sompong Chuaynugul, International College, National Institute Development Administration (ICO-NIDA), Bangkok Krungthep Mahanakhorn, Thailand

Faizul Mubarok, Postgraduate Program, Faculty of Economics, Universitas Terbuka, South Tangerang, Indonesia

**ID 59** The Development of a Dual-channel Warehouse and Inventory Management Model with Stochastic Demand and Return Products in Sports Retailer

Muftazam Bagus Harto and Dendi P. Ishak, Industrial Engineering Department, Faculty of Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia

**ID 142** An Efficient Simulated Annealing Algorithm for the Joint Order Batching and Picker Routing Problem in Manual Order Picking Systems

Felicia Nathania and Komarudin, Department of Industrial Engineering, Universitas Indonesia, Depok, West Java 16424, Indonesia

**ID 351** Barriers to Agile Project Management Implementation: Findings from a Systematic Literature Review

Edson Oliveira Martins, Master Student in the Department of School of Management, Federal University of Paraná, UFPR School of Management, PR, Curitiba, Brazil

Guilherme Francisco Frederico, Professor in the Department of School of Management, Federal University of Paraná, UFPR School of Management, PR, Curitiba, Brazil

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8:00 – 10:20, THURSDAY, June 15

**Operations Management**

**Virtual Room 5**

**Session Chair:** Mohammad Agung Saryatmo, Universitas Tarumanagara, Jakarta, Indonesia

**ID 128** Sustainable Waste Management System Selection Using AHP-PROMETHEE: Case Study in Yogyakarta

Rafida Salwa Wijayanti and Andri D. Setiawan, Department of Industrial Engineering, University of Indonesia, Depok, Indonesia

**ID 107** Airport Electricity Consumption Demand Forecasting Model using Seasonal Autoregressive Integrated Moving Average

Afwan Heru Cahya and Zukmain, Industrial Engineering Department, Faculty of Engineering, University of Indonesia, Depok, West Java, Indonesia

**ID 44** Forecasting Model for Pharmaceutical Returned Products

Sarah Yohana and T Yuri M Zagloel, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Salemba 10430, Indonesia

**ID 214** Performance Measurement of Supply Chain Activities Using the Scor 12.0 Approach in the Cosmetic Industry in Indonesia

Andikaputra, University of Indonesia, Indonesia

**ID 53** Availability Optimization of the Crawler Crane Using Approach Reliability Engineering at Logistic Shore Base Company in Indonesia

Tiara Shinta Raharkandi and Dendi P. Ishak, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Salemba 10430, Indonesia

**ID 64** Determining Optimum Maintenance Interval of Critical Equipment in Geothermal Power Plant Based on Reliability Value and Cost Ratio

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8th North American IEOM Conference
8:00 – 10:20, THURSDAY, June 15  
**Productivity**

**Virtual Room 6**

**Session Chair:** Adhiyia Mangala, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, Indonesia

**ID 67**  
**The Relational Mix of The Innovative New Ventures: Social Network Analysis of The Indian Tech-Startups**  
Anusha Sabhahit (She/her), Senior research scholar, Department of Management Studies, Indian Institute of Science, Bangalore, 560 012, India  
Bala Subrahmanya M H, Professor, Department of Management Studies, Indian Institute of Science, Bangalore, 560 012 India

**ID 230**  
**Topological Optimization For a 3D Printed Motorbike Frame**  
Edoardo Pignatelli, Giulio Carlini, Marco Freddi, Giulio Galiè and Leonardo Frizzi, Department of Industrial Engineering, University of Bologna Bologna, BO 40136, Italy

**ID 270**  
**Using Machine Learning to Risk Prediction as Safety Risk Management Implementation in Aircraft Maintenance Industry**  
Nur Laily Haryanti and Komarudin, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, Depok, West Java, Indonesia

**ID 73**  
**Designing on Demand Job Application for Online Employment Company in Indonesia**  
Putri Aysha Qalbi and Novandra Rhezza Pratama, Department of Industrial Engineering, University of Indonesia, Salemba, Indonesia

**ID 201**  
**Analysis of Factors Influencing the Usage of Online Food Delivery Applications Based on UTAUT2 Model**  
Aditya Prayudhi and Zulkarnain, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia

**ID 143**  
**Container Terminal Performance in Indonesia Using Data Envelopment Analysis**  
Bhima Nur Santiko and Armand Omar Moeis, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, West Java, Indonesia

**ID 151**  
**Evaluation of Digital Transformation Success Factors in Air Cargo Industry using IFCM Approach**  
Gülçin Büyüközkan and Orhan Feyzioğlu, Professor Doctor, Professor Doctor, Industrial Engineering Department, Galatasaray University, 34349, Istanbul, Turkey  
Celal Alpay Havle, Assistant Professor Doctor, Professional Flight Program, Özyeğin University, 34794, Istanbul, Turkey

**June 15, 2023 (Thursday) - Session: 10:00 am – 1:00 pm – Onsite Room 1**

**Keynote Speakers**

10:00  
Conference Chair Remarks

10:20  
Keynote IX (Day 3 Opening Keynote):  
**Dr. Magdy Akladios**

Department Chair of Physical and Applied Sciences and Professor of Occupational Safety and Health with specializations in industrial hygiene or safety, College of Science and Engineering, University of Houston-Clear Lake, Texas, USA

11:00  
Keynote X:  
**Suresh Vaidyanathan**

Chief Engineer & General Manager, Refining Business Improvement, Phillips 66, Westchase, Houston, Texas

11:40  
Keynote XI:  
**Mr. Bruce Webb**
June 12-15, 2023

IEOM Houston Conference
PARALLEL SESSIONS

June 15, 2023 (Thursday) - Session: 2:00 – 3:45 pm

2:00 – 2:45, THURSDAY, June 15

Onsite Room 1

Global Supply Chain and Logistics I

Session Chair: Mohammad Anwar Rahman, Ph.D.

2:00 pm – 2:20 pm (Thursday, June 15)

Manohar S. Madan, PhD
Professor
ITSCM Department
University of Wisconsin-Whitewater
Whitewater, WI – 53190

2:20 pm – 2:40 pm (Thursday, June 15)

ID 129 A firm-based perspective of the notion “Carbon Neutrality”: Role of Supply Chain Mapping
Muhammad Shujaat Mubarik, College of Business Management, Institute of Business Management, Karachi, Pakistan
Sharfuddin Khan, Department of Industrial Systems Engineering, University of Regina, Canada

2:40 pm – 3:00 pm (Thursday, June 15)

Mohammad Anwar Rahman, Ph.D.
Associate Professor
Manufacturing and Construction Management
Central Connecticut State University
New Britain, CT, USA

3:00 pm – 3:20 pm (Thursday, June 15)

2:00 – 2:45, THURSDAY, June 15

Onsite Room 2

Diversity and Inclusion Panel sponsored by Ford Motor Company

Panel Chair

Professor Donald M. Reimer
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA
Director, Membership and Chapter Development, IEOM Society

Panel Speaker I

Tanya Hill
Chief Executive Officer & Founder
Panel Speaker II

Dr. Devinder Kumar Banwet FIE  
Vice Chancellor Founding Retd  
University of Engineering & Management  
Kolkata India  
Professor Emeritus, DMS, IIT Delhi (India)

Panel Speaker III

Lydia Gutierrez  
President  
Hacienda Mexican Foods  
Detroit, Michigan

2:00 – 2:45, THURSDAY, June 15  
Industry 4.0 and Industry Solutions  
Onsite Room 3

Session Chair: Thiru, University of Texas at Dallas, United States

ID 269  Optimization of Calibration Certificate Storage and Reference  
Kayla Buczkowski, Applications Service Engineer at A&D Technology, Masters of Engineering Management and Masters of Industrial, Engineering Candidate of the College of Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 70  Strategic Implementation of Industry 4.0 in Manufacturing Enterprises located in Emerging Economies: A Resource Utilization Perspective  
Kaverinathan (Kevin) Dhanapal, Ph.D. Student, Center for Supply Chain Entrepreneurship, Department of Management, College of Business New Mexico State University, Las Cruces, NM, United States

ID 156  Evaluating the Efficiency and Learning Outcomes of a Technical Kardex Format in Industrial Training  
Azucena Minena García-León, Iván Guillermo González-Palomó and Carolina Solís-Peña, Professor, School of Chemical Science, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

ID 157  Enterprise Service Management Cybersecurity Threats: Exploring Cloud Configuration Management Database (CMDB) Implementation Within Community Colleges  
Fredrick Dande, PhD Student, PH. D in Technology Management, Indiana State University; College of Technology, 200 North Seventh Street Terre Haute, Indiana, USA  
Dr. Xaiolong Li, Department of Electronics and Computer Engineering Technology, Indiana State University, Bailey College of Engineering & Technology, 200 North Seventh Street Terre Haute, Indiana, USA

ID 8  Cybersecurity in Online Learning Environment  
Thiru, University of Texas at Dallas, United States

2:00 – 3:45, THURSDAY, June 15  
Technical Presentations  
Virtual Room 4

Session Chair: Henry Ncube, University of Johannesburg, Department of Quality and Operations Management, South Africa.

ID 1  A MILP Model for Optimal Sizing of a Concentrating Solar Power Plant with Thermal Energy Storage  
Ahmed M. Ghaithan, Assistant Professor, Construction Engineering & Management, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

ID 133  Conceptual Product Development through Parametric Optimization: A Case Study on the Design of an Ophthalmic Instrument  
Kristin Bartlett, PhD Candidate, Engineering Technology, Purdue University, West Lafayette, IN 47906, USA  
Alex Young, Instructor, Ophthalmology, Harvard Medical School, Boston, MA 02115, USA  
Jorge D. Camba, Associate Professor, Engineering Technology, Purdue University, West Lafayette, IN 47906, USA

ID 254  Safety Improvement Through Training using incident reports  
David C. Evans and Kuldeep Agarwal, Department of Automotive and Manufacturing Engineering Technology, Minnesota State University Mankato Mankato, MN 56001, USA

ID 43  Entrepreneurship Education Research: A Literature Review of Highly Cited Papers  
Eren Ozgen, College of Business, Florida State University, Panama City, Florida 32405-1099 USA

ID 209  The Inaugural Faculty - Who starts a new college during a pandemic?  
E Shirl, University of Michigan Flint, United States

ID 195  Decision Engineering and the Digital Twin of an Acquisition Program a Cumulative Case Study  
© IEOM Society International  8th North American IEOM Conference
June 15, 2023 (Thursday) - Session: 4:00 – 5:45 pm

4:00 – 5:45, THURSDAY, June 15

Onsite Room 1

Innovation and Entrepreneurship Workshop
Speaker: Professor Don Reimer, Adjunct Professor, LTU

Onsite Room 2

Global Engineering Education Forum – Panel

Panel Chair
Dr. Adedeji Badiru
Dean
Graduate School of Engineering and Management
Air Force Institute of Technology
Wright-Patterson AFB
Ohio, USA

Panel Speaker I
Dr. Abu Masud, P.E.
Emeritus Professor
Department of Industrial and Manufacturing Engineering
Wichita State University
Kansas, USA

Panel Speaker II
Paul Perkins
President
Amatrol, Inc.
Jeffersonville, Indiana
USA

Panel Speaker III
Dr. Christopher Cox, P.E.
Faculty, Construction Management
College of Engineering and Technology
Western Carolina University
Cullowhee, North Carolina, USA

Panel Speaker IV
Professor Hamid Parsaei, Ph.D., PE
Fellow, IIESE, ASEE, SME, IEOM
Professor, Department of Industrial and Systems Engineering
Director, College of Engineering Accreditation and Assessment
Texas A&M University
College Station, Texas, USA
IEOM President, 2021-2023; IEOM Vice President, 2019-2021

Onsite Room 3

4:00 – 5:45, THURSDAY, June 15

Technical Presentations
Session Chair: Mohammad Rahman, Central Connecticut State University, New Britain, CT 06053, USA
ID 359  Probabilistic Project Management Based on Earned Value Management
Lady Vanessa Rangel, Industrial Engineering Department, Universidad del Valle, Cali, Colombia
Cristina Isabel Aguilar, Industrial Engineering Department, Universidad del Valle, Cali, Colombia

ID 24  Learning-Curve Applications for Emerging Products and Services
Mohammad Rahman and Daniel Kirby, School of Engineering, Science, and Technology, Central Connecticut State University, New Britain, CT 06053, USA

ID 418  Applications of Industry 4.0 in Supply Chain Management: A Systematic Literature Review
Arvin Shadravan and Hamid R. Parsaei, Wm Michael Barnes ’64 Department of Industrial & Systems Engineering, Texas A&M University, College Station, Texas, USA

4:00 – 5:45, THURSDAY, June 15  Energy and Management  Online Room 4
Session Chair: Dr. Esteban Alexis Soto Vera, Southeast Missouri State University, Cape Girardeau, MO, USA

ID 186  Dimensions of Energy Sustainability Measurement
Moses Jeremiah Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban, South Africa
Oludolapo Akanni.Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban, South Africa

ID 188  Hydrogen Production and Application in The Energy Transition
Moses Jeremiah. Barasa Kabeyi, Industrial Engineering Department, Durban University of Technology, Durban, South Africa
Oludolapo Akanni.Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban, South Africa

ID 206  Technical and Economic Efficiency in Photovoltaic Battery Systems
Meriem Andam, Jamila El Alami and Younes Louartassi, Laboratory for System Analysis, Information Processing, and Integrated Management (LASTIMI), High School of Technology-Salé, Mohammed V University in Rabat, Morocco
Rabie Zine, School of Science and Engineering, Al Akhawayn University in Ifrane, Morocco

ID 353  Emission Reduction by Massive Integration of Solar Plants in the US Grid
Dr. Esteban Alexis Soto Vera, Department of Engineering and Technology, Southeast Missouri State University, Cape Girardeau, MO, USA
Gnanaprakash Athmanathan, Department of Industrial Engineering, Purdue University, West Lafayette, Indiana, USA
Brandon Yonnie, Department of Industrial Engineering, Navejo Technical University, Crownpoint, New Mexico, USA
Amy LeGrande, Department of General Engineering, Simpson University, Redding, California, USA
Andrea Hernandez and Alexander Vizcarrondo Ortega, Department of Industrial Engineering, University of Puerto Rico at Mayaguez, Puerto Rico, Mayagüez, USA
Dr. Lisa Bosman, Purdue Polytechnic Institute, Purdue University, West Lafayette, Indiana, USA

June 15, 2023 (Thursday) - Session: 7:00 – 10:00 pm
Conference Awards Ceremony and Dinner

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Local University Visits

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

Faculty Advisors

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

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

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

Department Chair/Head: Dr. Azim Houshyar

Chapter Officers

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

Planned Activities:

Bell’s Brewery Tour  
Pfizer Tour  
Lean Six Sigma Certification  
Lawrence Tech Chapter Visit

![Image of IEOM Houston Conference Student Chapters, June 12-15, 2023](image-url)
IEOM Student Chapter at Loyola University of Chicago, IL, USA

Faculty Advisor

Dr. Sarah Ali  
Clinical assistant Professor  
Engineering, Math and Honors Departments  
Chicago, Illinois, USA

Chapter Officers

- President: Dhruv Patel
- Vice President: Lauren David
- Treasurer: Nicholas Yakonski
- Director of Membership: Ben Dobbins
- Director of Communication: Alek Kacorzyk

Members:

- Jack Raikar
- Ben Dobbins
- Alek Kacorzyku
- Jhon Tenorio
- Lauren David
- Simon, Sornat
- Nicholas Yakonski
IEOM Student Chapter at Buffalo State College, Buffalo, New York, USA

Faculty Advisor
Dr. Elizabeth O’Neill
Assistant Professor
Engineering Technology
SUNY Buffalo State College
Buffalo, NY, USA

Chapter Officers
- President – Nick White
- Vice President – Sterling Jones
- Secretary – Steven Phengsamplane
- Treasurer – David Pignone

Members
- Daschal Abbasso
- Siam Hassain

Activities
- Plant visits
- Research project with additive manufacturing in the works
- Speakers from industry
IEOM Student Chapter at Department of Data Science and Business Analytics, Florida Polytechnic University, USA

Faculty Advisors

Dr. Jing Hou  
Assistant Professor  
Department of Data Science and Business Analytics

Dr. James Mennie  
Business Director – FIPRI  
Department of Data Science and Business Analytics

Florida Polytechnic University: https://floridapoly.edu/

Chapter Officers

President: Yordanos Jewani  
Vice President: Gus Lipkin  
Secretary: Dhrishya Sureshbab Menon  
Treasurer: Jake Greenberg  
Director of Social Media: Rominna Carvajal  
Director of Program/Activities: Shawn McClymont  
Director of Membership: Aamar Shabir

Chapter Members

Susmitha Chereddy  
Susmitha Reddy Gopavaram

IEOM Student Chapter at Indiana State University, Terre Haute, Indiana, USA

Faculty Advisor

M. Affan Badar, PhD  
Professor and Interim PhD Technology Management Director  
Bailey College of Engineering and Technology  
Indiana State University  
Terre Haute, Indiana, USA

University or Department Website: www.indstate.edu

Chapter Officers

President: Hamad Alsubhi  
Secretary: Jonathan Walston  
Treasurer: Jonathan Walston  
Director of Program/Activities: Todd Lemon  
Director of Membership: Todd Lemon
IEOM Student Chapter at Southern Arkansas University, Magnolia, Arkansas

Faculty Advisor
Dr. Hayder Zghair
Assistant Professor
Department of Engineering & Physics
Southern Arkansas University
Magnolia, Arkansas, USA

Technical Advisor
Mr. Jeffrey Sumner
Department of Engineering & Physics
Southern Arkansas University
Magnolia, Arkansas, USA

Chapter Officers
President: Adam Simmons
Director of Social Media: Makayla Plummer
Director of Membership: Charlie Matthews

University Website: www.saumag.edu

Student Chapter Members
Jamal Anderson
Tori Bates
Daniel Brian
Brooklin Brown
Jayme Correa
John-Thomas Daigle
Colton Dewoody
Logan Flowers
Matthew Griffie
Jon Hern
Noah Luper
Charlie Matthews
Riley Moore

Cuashaundra Owens
Logan Pamplin
Makayla Plummer
Elijah Reddick
Gabriel Reyna Garcia
Dayne Schicktanz
Adam Simmons
Aimee Spells
Colton Thomas
Maximus Vecchiet
Benton Williams
Aaron M Floyd
IEOM Student Chapter at Lawrence Technological University
Southfield, Michigan, USA

Chapter Advisors
Dr. Ahad Ali
Professor Don Reimer

Chapter Officers: 2022 – 2023
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General Secretary: Nauman Abdul Muqeeth
Treasurer: Bharani Beenamapally
Director Social Media: Gunuguthi Harshavardhan Goud
Director of Program/Activities: Anjan Kumar Kolluri
Director of Membership: Sriram Kumar Maddu
Director of Communications: M Jayanth
Director of coordination: Ajaz Ahmed Khan

Student Volunteers:
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Sai Chand Gogishetty
Gouri Reddy
Ankitha Prava
SVS Karthik
Arjun Nallachery
Feroz Mohamed
Vyoma Teja Sajja
Sahithi Algaskhanpet
Sibin Mathew
Rohith Rapol
Ahmad Mahir Faysal
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Industrial Engineering and Operations Management Society International
Upcoming IEOM Conferences

6th European Conference on Industrial Engineering & Operations Management
Lisbon, Portugal, July 18-20, 2023
Venue: Doubletree by Hilton Hotel
Hosts: NOVA School of Science and Technology – FCT NOVA

4th Asia Pacific Conference on Industrial Engineering and Operations Management
Sept. 12-14, 2023, Ho Chi Minh City, Vietnam
Venue: CFVG-HCM and University of Economics Ho Chi Minh City

IEOM International Conference on Smart Mobility and Vehicle Electrification
October 10-12, 2023
Southfield, Michigan, USA

3rd Indian International Conference on Industrial Engineering and Operations Management
New Delhi, India, November 2-4, 2023
Hosts: AMU and DTU

2nd Australian Conference on Industrial Engineering and Operations Management
Nov. 14-16, 2023, Melbourne
Venue: Batman’s Hill Hotel on Collins

14th International Conference on Industrial Engineering and Operations Management
February 12-14, 2024, Dubai, UAE
Venue: Hyatt Regency Dubai, Host: Khalifa University

5th African International Conference on Industrial Engineering & Operations Management
Johannesburg/Pretoria, South Africa
April 23-25, 2024, Venue: CSIR ICC

5th South American Conference on Industrial Engineering & Operations Management
Bogota, Colombia, May 7-9 2024
Host: Fundación Universitaria UNIR Colombia

9th North American Conference on Industrial Engineering and Operations Management
Washington, DC, USA, June 4-6, 2023
Hosts: University of the District of Columbia (UDC)
Venue: UDC Campus, 4200 Connecticut Ave NW