

Washington, DC, USA

9th North American International Conference on Industrial Engineering and Operations Management

HOST UNIVERSITY & VENUE

UNIVERSITY OF THE
DISTRICT OF
COLUMBIA
1851



ORGANIZER



June 4–6, 2024

Sponsors and Partners



Organizer



IEOM Society

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

Industrial Engineering and Operations Management Society International

IEOM Society International, 21411 Civic Center Dr., Suite 205, Southfield, Michigan 48076, USA

Phone: 1-248-450-5660, Email: info@ieomsociety.org

Welcome to the 9th North American Conference on Industrial Engineering and Operations Management in Washington, DC, USA

To All-Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to the 9th North American **International Conference on Industrial Engineering and Operations Management**, June 4-6, 2024. It is hosted by University of the District of Columbia. Venue is UDC Student Center Building, 4200 Connecticut Ave NW. 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 300 papers/abstracts submitted from 31 countries. After a thorough peer-review process, more than 210 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 9th North American Conference:

1. Eric L. Moore, Ph.D., Deputy to the Commanding General, U.S. Army Combat Capabilities Development Command
2. Javad Mokhbery, CEO, FUTEK Advanced Sensor Technology, Inc., Irvine, California, United States
3. Dr. Vivek Dwivedi, Associate Division Chief for the Mechanical Systems Division (MSD), NASA Goddard Space Flight Center (GSFC)
4. Mr. Matthew J. Stepura, Systems Engineering and Test Department Head, Naval Air Systems Command
5. Maurice D. Edington, Ph.D., President, University of the District of Columbia
6. Jonathan Conrad, Principle AI Researcher – Amazon, Reston, Virginia
7. Dr. Christopher Cox, P.E., Faculty, Construction Management, College of Engineering and Technology, Western Carolina University, Cullowhee, North Carolina, USA
8. Rachel R. Hughes, MBA, Department Manager, Acquisition Strategy and Management, MITRE Corporation
9. Khershed P. Cooper, Ph.D., FASM, FSME, Program Director, Advanced Manufacturing Program, Division of Civil, Mechanical and Manufacturing Innovation (CMMI), National Science Foundation, Alexandria, VA, USA
10. Robert J. Wenier, Global Head of Cloud and Infrastructure, AstraZeneca Pharmaceuticals LP, Gaithersburg, Maryland
11. Victor R. McCrary, PhD, Vice President for Research, Office of University Research and Professor of Chemistry, The University of the District of Columbia and Vice Chair, National Science Board
12. Dr. Wesley L. Harris, Charles Stark Draper Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology (MIT) and Vice President of National Academy of Engineering

At this conference, the IEOM Society will hold its various plenary sessions on global engineering education, artificial intelligence and machine learning, supply chain management and Industry 4.0. It will feature distinguished speakers who will discuss workforce readiness and engineering education challenges and opportunities and will showcase industry best practices on IoT, AI, data analytics, supply chain and logistics. Three panel sessions have been planned: Intelligent Maintenance and Reliability, Global Engineering Education, Women in Industry and Academia 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. There are many sightseeing sites in the Washington, DC area and nearby.

We would like to thank National Science Foundation for providing student travel support for minority and under representative students. The travel support is awarded to Lawrence Technological University.

Our conference host, University of the District of Columbia would like to extend a warm welcome to all participants.

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



Professor Devdas Shetty
Conference Chair
Dean

College of Engineering and Applied Sciences
University of the District of Columbia
4200 Connecticut Ave NW
Washington, DC 20008, USA



Dr. Ahad Ali
Conference Co-Chair

Associate Professor and
Director of Industrial Engineering Program
Lawrence Technological University
Southfield, Michigan, USA
Executive Director of IEOM



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

Keynote Speakers

Tuesday, June 4, 2024

Conference Host and IEOM Society Welcome Remarks: Tuesday, June 4, 2024, 10:00 – 10:20 am

10:00 am - Conference Chair Remarks



Dr. Devdas Shetty, PhD, PE, Fellow ASME, IEOM
Dean and Professor
School of Engineering and Applied Sciences
University of the District of Columbia
Washington, DC, USA

Dr. Devdas Shetty serves as the Dean of the School of Engineering and Applied Sciences (SEAS) at the University of the District of Columbia, and he is also a tenured Professor of Mechanical Engineering. Dr. Shetty is a world-renowned scholar, educator, and outstanding academic administration leader whose career spanned more than 35 years in several institutions.

Prior to joining UDC in 2012, he served as the Dean of Engineering at Lawrence Technological University, Michigan, and served as Dean of Research and Vernon D. Roosa Distinguished Professor at the University of Hartford, Connecticut. At the University of Hartford, he was the founding Director of the Engineering

Applications Center, and he was responsible for creating agile research partnerships with more than 50 companies. He also held faculty positions at the Albert Nerkin School of Engineering at the Cooper Union in NY.

Dr. Shetty has an outstanding academic record of scholarship which includes authorship for 3 textbooks in engineering used worldwide. He has authored over 250 scientific articles and journal papers and proceedings. He holds seven patents and numerous grants as PI. His research work is cited for original contribution to the integration of mechatronics in advanced manufacturing, creating new approaches to surface finish measurement, achievements in product design and cutting-edge curriculum of integrating engineering design with humanities and social sciences.

Dr. Shetty is a Fellow of the American Society of Mechanical Engineers (ASME), Fellow of Industrial Engineering and Operation Management Society (IEOM). Major honors include BEYA 2021 Presidential Award for STEM Education, James Frances Bent award for Creativity, the Edward S. Roth National Award for Manufacturing from the Society of Manufacturing Engineers, American Society of Mechanical Engineer Faculty Award, and Society of Manufacturing Engineers Honor award, Lifetime award from IEOM. He also received the 2019 Honorable Ronald H Brown Distinguished Leadership Award from the University of the District of Columbia. He is an elected member of the Connecticut Academy of Science and Engineering.

Dr. Shetty has extensive experience in leading accreditation, increasing enrollment, and leading strategic planning initiatives. During his tenure at UDC, Dr. Shetty provided leadership in securing more than 30 million dollars in grants and in establishing several federally funded research centers. Under his leadership, SEAS made advances in increasing student success outcomes, launched many new academic programs and improved the academic ranking of the programs.

10:10 am - Remarks from IEOM Society International



Professor Donald M. Reimer
Chief Operating Officer
IEOM Society International
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.

Opening Keynote I: Tuesday, June 4, 2024, 10:20 – 11:00 am

Eric L. Moore, Ph.D.
Deputy to the Commanding General
U.S. Army Combat Capabilities Development Command

Dr. Eric L. Moore is the Deputy to the Commanding General (DtCG), U.S. Army Combat Capabilities Development Command on Aberdeen Proving Ground, Maryland. As the DtCG, he provides strategic direction for the organization and serves as the catalyst for research, development, and engineering initiatives across the command. Dr. Moore also serves as the Senior Civilian for a workforce of over 14,000 personnel.

Moore was appointed to the Senior Executive Service on August 21, 2016.

In his prior assignment, Moore served as Director of the DEVCOM Chemical Biological Center, formerly known as the Edgewood Chemical Biological Center. His first assignment as an SES was the ECBC Director for Research and Technology.

An expert in chemical and biological defense programs and medical countermeasures, Moore served in multiple positions at the Defense Threat Reduction Agency including Chief of the Advanced and Emerging Threat Division, and Chief of the Basic & Supporting Science Division.

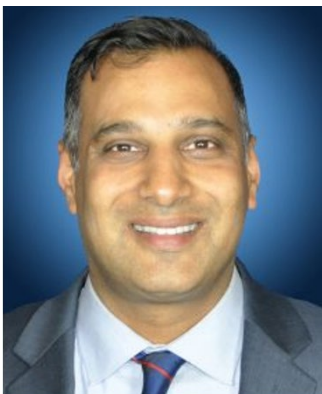
Moore's educational achievements include a doctorate in neurophysiology from Meharry Medical College in 1992; and a bachelor's degree in biology from Fisk University in 1987. He was commissioned as a 2nd Lieutenant through the U.S. Army R.O.T.C. at Vanderbilt University in 1987.

His civilian and military awards include the Department of Defense Distinguished Civilian Service Award, 2016; Defense Meritorious Service Medal (1 Oak leaf cluster); Joint Service Commendation Medal; Army Commendation Medal; and the National Defense Service Medal (1 bronze star).

Keynote II: Tuesday, June 4, 2024, 11:40 – 11:20 am

Javad Mokhbery
CEO
FUTEK Advanced Sensor Technology, Inc.
Irvine, California, United States

Javad Mokhbery is the CEO of FUTEK Advanced Sensor Technology, Inc. He graduated from Lawrence Technological University in Michigan with a Bachelor's degree in Mechanical Engineering and began his career in the sensor industry in 1979 as an Engineer for GSE Inc. While at GSE, he was promoted to Project Engineer, and worked on the design and development of single and multi-axis transducers used to measure force, torque, and moment. Upon completing his work at GSE, Javad moved from Michigan to Southern California and began working for Revere Transducers. There, he became the Senior Project Engineer, leading development of thin-film deposition process, full bridge karna foil gage with compensating resistors on the same foil. Javad made important contributions conducting material studies on stainless steel, tool steel and aluminum for improving transducer characteristics. Following his success at Revere Transducers, Javad worked as a Sensor Technical Consultant and Project Leader for Rockwell International. At Rockwell, Javad's main focus was to support the space shuttle component testing. In 1989, Javad, joined by his brother Mohammad Mokhberi, founded FUTEK Advanced Sensor Technology, Inc. Since then, Javad has led his company from its origins as a two-man operation out of his one-bedroom apartment into one of the world's leading sensor manufacturers, used by the likes of Apple, Google, NASA, Tesla, and Intuitive Surgical. Blending a bold entrepreneurial vision with technical expertise from his engineering background, Javad had a clear and ambitious goal from the start: To create high-quality products and solutions that would advance the future of technology.

Keynote III: Tuesday, June 4, 2024, 11:40 am – 12:20 pm

Dr. Vivek Dwivedi
Associate Division Chief for the Mechanical Systems Division (MSD)
NASA Goddard Space Flight Center (GSFC)

Vivek Dwivedi is the Associate Division Chief for the Mechanical Systems Division (MSD) at NASA's Goddard Space Flight Center (GSFC). MSD is a multi-discipline organization with 250 Civil Servants working on awe-inspiring discoveries through collaboration on all of Goddard's missions, from concept through development, test and flight. He has supported the Mechanical Systems Division since 2010 holding multiple leadership positions including Division Chief Technologist and Associate Branch Head of the Thermal Engineering Branch. Prior to that he worked as a contractor at GSFC as a space science visualization specialist from 1996-2010.

As a technologist, Vivek is the Agency subject matter expert in Atomic Layer Deposition (ALD) a thin film nanomanufacturing process that allows for the conformal deposition of metals and metal-oxide/nitride/fluoride/etc. on substrates that range from flat to high aspect ratio topographies. Utilizing this nascent technology, used exclusively for the semiconductor industry, he has led and managed interdisciplinary teams (internal and external to NASA) to investigate and solve several challenges that are applicable in the Office of Chief Technologist's Technology Roadmap. Vivek's technology development efforts include charge mitigating coatings on the MISSE ISS program as well as the development of novel mirror coatings for future multi-wavelength science flagship missions.

Dwivedi has a Ph.D., M.Eng. and BS in Chemical Engineering from University of Maryland, College Park (2010, 2007, 1999) as well as a MS in Computer Science from Bowie State University (2002).

Keynote IV: Tuesday, June 4, 2024, 12:20 pm – 1:00 pm



Mr. Matthew J. Stepura **Systems Engineering and Test Department Head** **Naval Air Systems Command**

Mr. Stepura currently serves as the Systems Engineering and Test Department Head in Naval Air Systems Command (NAVAIR).

Joining NAVAIR in 1997, Stepura started his career in the flight simulation group. He designed control loading (force-feel) systems for high fidelity aircraft flight simulators, including both fixed wing and rotary wing platforms across the USN/USMC inventory.

In early 2000, Stepura was selected to attend USN Test Pilot School. In 2001 he graduated as a rotary wing project engineer, Class 119. As a flight test engineer, Stepura has worked multiple rotary wing programs. He has been responsible for planning, executing and reporting of envelope expansion, mission systems, and sensor testing of multiple USN/USMC rotary wing aircraft.

In 2008 Stepura was selected as the Lead Test Engineer (LTE) of the USN's MH-60R program, responsible for all matters of the MH-60R test program. Since his initial selection to lead test engineer in 2008, Stepura has also served as LTE of NAVAIR's CH-53K Super Stallion and MQ-4C Triton programs. In 2017, Mr. Stepura transitioned to be the Assistant Program Manager for Systems Engineering in PMA-268 (the US Navy's Unmanned Carrier Aviation Program Office). In this capacity, he helped lead the team selecting the US Navy's first production, carrier based unmanned aerial vehicle, the MQ-25.

Following his position in PMA-268, Stepura was selected as the Assistant Program Executive Officer for Test and Evaluation (APEO T&E) in PEO, Common and Commercial Systems. Stepura led the test and evaluation branch for multiple program offices, as well as, testing of rapid development, deployment, and experimentation programs. Following that assignment, he also served as the APEO T&E in PEO Tactical, where he led Test and Evaluation efforts the Navy's carrier based aircraft.

In 2023 Stepura was selected to his current position, the NAVAIR Systems Engineering and Test (SET) Department Head. In this capacity, Mr. Stepura is responsible to provide engineering and test leaders who head the teams that develop and deliver effective, affordable and safe designs of Naval Aviation platforms and systems, throughout their lifecycle. In addition, the SET Department designs and deploys digital tools designed to improve the efficiency of our workforce and develops NAVAIR engineering and test policy.

Stepura holds Bachelor of Science in Mechanical Engineering and Master of Engineering degrees from the University of Hartford, as well as, a Master of Science in Aerospace Engineering from the Florida Institute of Technology. On Nov 23, 2010, Stepura and his co-inventors were Awarded Patent 7,839,304 Method and System for Alerting Aircrew to Unsafe Vibration Levels.

In September 2017, Stepura was awarded the Navy's Meritorious Civilian Service Award for his leadership of the MQ-25 Triton Integrated Test Team.

1:00 pm: UDC President Welcome Remarks



Maurice D. Edington, Ph.D. **President** **University of the District of Columbia**

Maurice D. Edington, Ph.D., began his tenure as the 10th President of the University of the District of Columbia in August 2023. Edington is an accomplished scientist and educator who brings over 20 years of higher education leadership experience to the university, including a proven track record of improving student retention and graduation rates.

Edington most recently served as the Executive Vice President and Chief Operating Officer at Florida A&M University (FAMU), where he guided strategy to improve institutional outcomes on key performance indicators and to sustain operational excellence. Under Edington's steady hand, FAMU climbed into the top 100 public national universities in the U.S. News & World Report rankings and became the nation's highest-ranked public HBCU, a designation it has held for the past five years.

As Provost and Vice President for Academic Affairs (2018-2022), Edington was responsible for all matters pertaining to academic programs, activities and services in FAMU's 14 colleges/schools, including institutional and specialized accreditation activities.

Edington worked closely with FAMU's President and Board of Trustees as the University's chief strategist to establish and advance the University's strategic priorities. His leadership helped FAMU boost student success outcomes, launch several new degree programs and experience its highest performance (in 2021 and 2023) on Florida's Performance-Based Funding Model.

Edington is a physical chemist by training with a research specialty in ultrafast laser spectroscopy. He also conducts research and provides training to faculty in STEM education.

Edington received a B.A. in chemistry from Fisk University and a Ph.D. in physical chemistry from Vanderbilt University. He also completed postdoctoral studies at Duke University, where he was a National Institutes of Health National Research Service Award Postdoctoral Fellow.

Edington is married to UDC Tonya Barge Edington and is the father of Gabriella Edington, M.D.

Wednesday, June 5, 2024

Keynote V: Wednesday, June 5, 2024, 10:00 – 10:40 am



Jonathan Conradt
Principle AI Researcher
Amazon
Reston, Virginia
United States

Jonathan Conradt is a lecturer for Amazon's Machine Learning University. (He is not representing Amazon and his presentation and comments are his own.) He creates and teaches curriculum on machine learning and artificial intelligence. He was a director at eBay where he was responsible for machine learning systems for Internet marketing. At Google, he was an engineering product manager for the Chrome web browser, and responsible for the Mac and Linux releases. At Microsoft he was a product manager for a television over IP product. He has eight patents related to ML and marketing, and was one of the creators of the popular management tool StrengthsFinder. Jonathan has volunteered and deployed to support hurricane recovery with the American Red Cross and is currently the treasurer for the Washington D.C. chapter of the Internet Society (ISOC).

Keynote VI: Wednesday, June 5, 2024, 10:40 – 11:20 am



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.

11:20 – 11:40 am Networking Break

Keynote VII: Wednesday, June 5, 2024, 11:40 am – 12:20 pm



Rachel R. Hughes, MBA
Department Manager, Acquisition Strategy and Management
MITRE Corporation

Topic for keynote: Prioritizing Business Considerations in Systems Engineering

Ms. Rachel Hughes is the Department Head, leading 90+ acquisition staff, for The MITRE Corporation's Acquisition Innovation Center's Acquisition and Program Management Department, where she has provided leadership and subject matter expertise in acquisition and contracting strategies, program oversight, and strategic sourcing methodologies for over fifteen years. Rachel has 30+ years of collective and hands-on experience and leadership in acquisition, supporting the Intelligence Community, Department of Defense, Department of Justice, Veteran Affairs, State Department, and numerous other Federal Agencies.

She is highly sought after for her thought leadership and innovative approaches, her ability to create practical and reusable products for sponsors, and her timely and impactful decision-making support. She has been a regular presenter on various topics at the National Contract Management Association's (NCMA) Continuing Education Lecture Series, World Congress, and Government Contracting Management Symposium.

Recently, Rachel has played a crucial role in helping the Federal Government develop Cyber Supply Chain Risk Management requirements to address performance expectations, proposal requirements, and continuous monitoring expectations. She is currently focused on defining better contractual requirements for Software Bill of Materials and exploring the role of Artificial Intelligence in acquisitions. Rachel is a retired Army Military Police Officer, and she holds an MBA with a concentration in Acquisition Management as well as a Bachelor of Arts in Economics.

Keynote VIII: Wednesday, June 5, 2024, 12:20 pm – 1:00 pm



Khershed P. Cooper, Ph.D., FASM, FSME
Program Director
Advanced Manufacturing Program
Division of Civil, Mechanical and Manufacturing Innovation (CMMI)
Directorate for Engineering (ENG)
National Science Foundation (NSF)
Alexandria, VA 22314, USA

Dr. Khershed P. Cooper is a Program Director for Advanced Manufacturing in the Civil, Mechanical and Manufacturing Innovation (CMMI) Division of the Engineering (ENG) Directorate at National Science Foundation (NSF). He directs basic research activities in advanced manufacturing, nanomanufacturing and associated Manufacturing USA Institutes and NSF-DFG collaborations. He is a disciplinary program officer for the Engineering Research Centers (ERCs), and a co-program officer for cross-cutting programs – Critical Aspects of Sustainability (CAS), Emerging Frontiers in Research and Innovation (EFRI), Network for Computational Nanotechnology (NCN), National Nanotechnology Coordinated Infrastructure (NNCI) and Accelerating Research through International Network-to-Network Collaborations (AccelNet). Recently, he also served as a program officer in NSF's Office of International Science and Engineering (OISE) on detail, where he developed collaborations with funding agencies in partner countries. Dr. Cooper is an NSF representative for National Science and Technology Council (NSTC)'s Nano Science Engineering and Technology (NSET) Subcommittee, which frames the National Nanotechnology Initiative (NNI) Strategic Plan. He represents NSF for NextFlex (flexible hybrid electronics) and REMADE (circular economy) Manufacturing Innovation Institutes. Prior to joining NSF, Dr. Cooper was Program Officer for Manufacturing Science at the Office of Naval Research (ONR) and, concurrently, a Senior Research Metallurgist at the Naval Research Laboratory (NRL). His earlier appointments were Supervisor of the Materials Research Group at Geo-Centers, Inc and Scientist II at Olin Metals Research Laboratory. Dr. Cooper received his MS and PhD from University of Wisconsin–Madison and his BTech from IIT—Bombay. He has presented over 200 invited and over 70 contributed talks at national and international conferences, meetings, and workshops. He has nearly 150 publications, edited one book and holds one patent. He has sponsored and participated in international studies in various emerging areas of advanced materials and advanced manufacturing. He is a Fellow of SME and ASM International and a recipient of ASM International's Burgess Memorial Award.

Thursday, June 6, 2024

Keynote IX: Thursday, June 6, 2024, 10:00 – 10:40 am



Robert J. Wenier
Global Head of Cloud and Infrastructure
AstraZeneca Pharmaceuticals LP
Gaithersburg, Maryland, USA

Rob is the Global Head of Cloud and Infrastructure for AstraZeneca and serves as a member of its IT Leadership Team. He has both strategic and budgetary oversight governing AstraZeneca's global hosting and transport estate, including four hyperscalers and 8 datacenters: enabling the technology needs of more than 250k users, at 152 sites, across 147 countries – including 28 pharmaceutical manufacturing facilities (with 5 under construction). He brings over 25 years of experience designing, deploying, and managing web-scale, mission critical systems. Prior to joining AstraZeneca, Rob served as Northrop Grumman's Chief Technologist for Cloud and Chief Cloud Architect, leading the company's extensive adoption of cloud and cloud native technologies. Rob began his career serving with the Judge Advocate Corps of the US Marine Corps and has held several varied and progressive technical and managerial leadership roles. For the past 14 years in particular, Rob has worked extensively with cloud services and technologies, spearheading the planning and execution of large-scale cloud adoption and migration efforts across a host of Fortune 500, multinational corporations. Rob holds a Bachelor of Science degree in Computer Technologies and Information Systems from the University of Mary Washington, and a Master's of Business Administration from George Mason University.

Keynote X: Thursday, June 6, 2024, 10:40 am – 11:20 am

Victor R. McCrary, PhD
Vice President for Research
Office of University Research
Professor of Chemistry
The University of the District of Columbia
Vice Chair, National Science Board

Victor R. McCrary, Vice President for Research at the University of the District of Columbia, where he champions the growth, development, direction and oversight of the University's research enterprise. He is a change agent and serial innovator, responsible for developing comprehensive, sustainable research strategies, fostering trans-disciplinary research, and expanding research programs via engagement with federal and state agencies and private entities. He has held similar research leadership positions at the Johns Hopkins University Applied Physics Laboratory, Morgan State University, and the National Institute of Standards and Technology, NIST. Dr. McCrary served two terms as the national president of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE). He is a Fellow of the American Chemical Society. He received his doctoral degree in chemistry from Howard University in 1986, a master's degree in engineering from the University of Pennsylvania in 1995, and a bachelor's degree in chemistry from

The Catholic University of America in 1978.

Dr. McCrary has authored and co-authored more than 60 technical papers and co-edited two books during his career at AT&T Bell Laboratories and NIST. He has received numerous honors and awards including co-recipient of the U.S. Department of Commerce's Gold Medal in 2000 and the 2002 Percy Julian Award by the National Organization of Black Chemists and Chemical Engineers. In 2011, he was honored as Scientist of the Year by the Annual Black Engineer of the Year Award (BEYA) STEM Conference.

In October 2016, President Barack Obama appointed Dr. McCrary to serve on the National Science Board which oversees the National Science Foundation. He chaired a task force which recently produced the report, "The Skilled Technical Working: Crafting America's Science and Engineering Enterprise". In May 2020, he was elected as the Vice-Chair of the National Science Board and. On May 4, 2022, Dr. McCrary was re-appointed by President Joseph Biden to a six-year term on the National Science Board and elected to a second term as Vice Chair. He was elected to a third term in May 2024.

11:20 – 11:40 Networking Break

Keynote XI: Thursday, June 6, 2024, 11:40 am – 12:20 pm

Dr. Wesley L. Harris
Charles Stark Draper Professor of Aeronautics and Astronautics
Massachusetts Institute of Technology (MIT)
Vice President of National Academy of Engineering

Wesley L. Harris is Charles Stark Draper Professor of Aeronautics and Astronautics and housemaster of New House Residence Hall at the Massachusetts Institute of Technology (MIT), where he was previously associate provost (2008–2013) and head of the Department of Aeronautics and Astronautics (2003–2008). He is Vice President, National Academy of Engineering and founding director, MIT Hypersonics Research Laboratory.

Before coming to MIT he was a NASA associate administrator, responsible for all programs, facilities, and personnel in aeronautics (1993–1995); vice president and chief administrative officer of the University of Tennessee Space Institute (1990–1993); and dean of the School of Engineering and professor of mechanical engineering at the University of Connecticut, Storrs (1985–1990). In his early career at MIT (1972–1985) he held several faculty and administrative positions, including professor of aeronautics and astronautics.

Dr. Harris has done academic research associated with unsteady aerodynamics, aeroacoustics, rarefied gas dynamics, sustainment of capital assets, and chaos in sickle cell disease, and made seminal contributions in each field. In academia he worked with industry and governments to design and build joint industry–government–university research and development programs, centers, and institutes and transferred technology effectively. He is credited with more than 135 technical papers and presentations and has held a number of distinguished, endowed professorships and lectureships.

In addition, he has served as chair or member of various boards and committees of the National Research Council (NRC), National Science Foundation (NSF), US Army Science Board, and several state governments as well as committees of the American Institute of Aeronautics and Astronautics (AIAA), American Helicopter Society (AHS), and National Technical Association (NTA). He was a member of the board of trustees of Princeton University (2001–2005) and has been an advisor to other universities, colleges, and institutes.

He is an elected honorary fellow of the AIAA, AHS, and NTA for personal engineering achievements, engineering education, management, and advancing cultural diversity, and has been further recognized by election to membership in the National Academy of Engineering, Cosmos Club, and Confrérie des Chevaliers du Tastevin as well as several honorary doctorate degrees.

He earned a bachelor of science degree (with honors) in aerospace engineering from the University of Virginia in 1964, and master's and PhD degrees in aerospace and mechanical sciences from Princeton University in 1966 and 1968 respectively.

Keynote XII: Thursday, June 6, 2024, 12:20 pm – 1:00 pm

Plenary Speakers

Plenary I

Tuesday, June 4, 2024 – 8:00 am – 9:30 am – Room 1 (Onsite)

Session Chair: Raghu Gurumurthy

Speaker I – 8:00 – 8:20 am, June 4, Tuesday



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.

Speaker II – 8:20 – 8:40 am, June 4, Tuesday



Raghu Gurumurthy
Director of Operations
Crossover Solutions USA Inc.
Livonia, Michigan, USA

Raghu Gurumurthy is Director of Operations at Crossover Solutions USA Inc. He is seasoned industrial engineering expert with over 10 years of experience in the field of Industrial Engineering and Operations Management. Raghu successfully executed over 70 IE consulting engagements from 2015-2022 across a wide spectrum of industries including Automotive, Energy Storage Systems, Food & Beverage, Building Products, Aviation, Industrial Gases, Chemicals, Oil & Gas. He helped clients realize over \$450 million in earnings and cost avoidance by streamlining processes through application of lean principles and best practices and well-recognized for proficiency in analyzing and mitigating operational pain points; resourceful decision maker that combines strong leadership and organizational skills. Raghu worked as an Industrial Engineer at Industrial Engineering Technologies, Inc., Toledo, Ohio where he delivered IE consulting and change management support to firms ranging from start-ups to top Fortune 50 companies. He worked collaboratively with clients in their challenging situations, crafting and implementing workplans that optimize outcomes. As a part of IET's leadership team, Raghu was heavily involved in all aspects of the firm's operations including sales, business development, project delivery, HR practices and strategy. Raghu earned Bachelor of Science in Chemical Engineering from University of Pune, India and : Master of Science in Industrial Engineering from University of Texas at Arlington, USA. He has various certifications: Six Sigma Black Belt (ASQ), Throughput Improvement Process, Theory of Constraints, Ergonomics Technical Training, Lean Manufacturing, Time Studies and World Class Manufacturing.

Speaker III – 8:40 – 9:00 am, June 4, Tuesday



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

Mr. Hosseinkhanli is Director of Quality Assurance, Performance and Business Improvement Amor Health Services, Inc. in Brownsville Texas USA. He was General Manager of Almana Trading in Doha Qatar Middle East and responsible for all aspects in creation and implementing of successful growth of new market development and turn- key operation for various products. Mr. Hosseinkhanli was involved with financial negotiation with national and international banking, corporation, private sources and trading organization. Volvo International Development Corporation, Gothenburg Sweden, Marketing Director For The Middle Eastern Countries, UAE, Saudi Arabia, Bahrain, Turkey and Iran. Negotiated and established exclusive franchise agreement and turn- key operation. Did market analysis and feasibility studies for Volvo International in the Middle Eastern countries and increase annual sales in excess of 55%. Chief Industrial Engineer, United Carr, manufacturer of plastic knobs for Automotive Industries, Knoxville Tennessee USA. His education background is: Master of Business Administration from IMMEDE Management Institute in Lausanne Switzerland majoring in financing. Bachelor of Science in Industrial and System Engineering from University of Rhode Island in Kingston Rhode Island USA. Certified Business Analyst from International profit Association in Buffalo Grove IL USA. Certified Six Sigma Green and Black Belt from Institute of Industrial Engineers. Extra Curriculum Activity: Senior Member of Institute of Industrial Engineers, Senior Member of ASQ and Senior Member of Swedish Method and Time Measurement Language: Fluent in English, Swedish, German, Turkish, Farsi and some Spanish.

Speaker IV – 9:00 – 9:20 am, June 4, Tuesday



Dr. Hamid Seifoddini
Associate Professor
Department of Industrial and Manufacturing Engineering
University of Wisconsin-Milwaukee
United States

Dr. Hamid Seifoddini is an Associate Professor in the Industrial and Systems Engineering Department at the University of Wisconsin-Milwaukee. Previously, he taught at the University of Utah from 1984 to 1986 and at Langston University from 1982 to 1984. He received his M.S. and Ph.D. in Industrial Engineering and Management from Oklahoma State University in 1977 and 1984, respectively. He works on the applications of clustering techniques in manufacturing. His focus is on lean manufacturing, prescriptive maintenance, and Industry 4.0. He is a member of the Institute of Industrial Engineers, the Society of Manufacturing Engineers, and the American Society of Engineering Education.

ID 276 Industry 4.0 Technologies Applications in Digital Construction

Benyamin Sadeghi, PhD candidate, University of Wisconsin-Milwaukee, United States
 Hamid Seifoddini, Faculty member, University of Wisconsin-Milwaukee, United States

Speaker V – 9:20 – 9:40 am, June 4, Tuesday

Plenary II

Thursday, June 6, 2024 – 8:00 am – 9:30 am, Room 1 (Onsite)

Session Chair: Mukti M. Rana, PhD

Speaker I, 8:00 – 8:20 am, June 6, Thursday



Mukti M. Rana, PhD
Professor of Engineering
Division of Physics, Engineering, Mathematics and Computer Sciences
& Optical Science Center for Applied Research (OSCAR)
Delaware State University
Dover, DE 19901, USA

Dr. Mukti Rana received his B.Sc. in Electrical and Electronics Engineering from Khulna University of Engineering (KUET), Bangladesh (1992-1997) and his M.S. (2000-2002) and Ph.D. (2003-2007) from The University of Texas at Arlington (UTA) in Electrical Engineering. He worked as Graduate Teaching Assistant and Graduate Research Assistant in the Department of Electrical Engineering of UTA. During his PhD, he worked to investigate various properties of radio frequency sputtered GexSi1-xOy thin films for uncooled infrared detection. He also designed, fabricated and tested microbolometers using GexSi1-xOy thin films as sensing layers. He worked as a post-doctoral research associate between 2007-2008 on Cardiopulmonary Resuscitation Administration by using tactile sensors based on poly-silicon thin films. In fall 2008, Dr. Rana joined as Assistant Professor in the Department of Electrical and Computer Engineering of University of South Alabama, Mobile. In 2010, he joined in the Department of Physics and Engineering and Optical Science Center for Applied Research (OSCAR) of Delaware State University. His current research interest includes 2D/3D interface, 2D materials and devices, ferroelectric materials, uncooled infrared detectors, and microelectromechanical system (MEMS) devices. He has published more than 35 refereed journal articles and conference presentations and holds four US patents. Dr. Rana is a senior member of IEEE, life member of SPIE, MRS and the founding student advisor of IEEE student branch at Delaware State University. Dr. Rana is the recipient of "Faculty Mentor of The Year Award, NASA, 2019" for his contribution towards advising and mentoring of students. He is also the recipient of excellence in mentoring award in 2021, excellence in research award in 2016 of DSU.

Speaker II, 8:20 – 8:40 am, June 6, Thursday



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

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

a Student Perspective, Racial Equity and STEM, STEM Education and Donk Racing, Motorsports and Applied STEM, Leveraging Project Management for Student Success, Paper Ceiling Explorations, and Entrepreneurship in Underserved Communities.

ID 129 Drive Your Future, Motorsports is more than entertainment: A case study of Donk Racing
E Shirl Donaldson, University of Michigan Flint, United States

Speaker IV, 9:00 – 9:20 am, June 6, Thursday

ID 292 Ahead of Industry 4.0, An Assessment of Corporate Readiness to Accommodate Industry 5.0
Rena Lewis, Graduate Student (Ph.D.), Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, Florida, USA
Ahmed Eishennawy, Professor and Executive Director, UCF Quality Institute, Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, Florida, USA

Speaker III, 8:40 – 9:00 am, June 6, Thursday

Speaker V, 9:20 – 9:40 am, June 6, Thursday

A CLEAN, SAFE
BUSINESS IS ESSENTIAL.
WE'RE READY™ TO HELP.



CINTAS
READY FOR THE WORKDAY®

Workshops

Tuesday, June 4, 2024, 4:00 – 6:00 pm (Onsite Room 1)

Innovation and Entrepreneurship Workshop

Workshop Facilitator: Professor Don Reimer, Lawrence Tech, MI, USA

Each team will develop an idea to solve an engineering problem that may have commercial potential. They will develop a business plan using the business model canvas. *Teams will compete for prizes with best ideas and best commercial potentials. Students need to bring their laptops.*

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

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

Topics:

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



Professor Donald M. Reimer
Chief Operating Officer
IEOM Society International
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.

Wednesday, June 5, 2024, 2:00 – 6:00 pm (Onsite Room 1)

AI and Machine Learning Workshop

Stepping Into Ai & Machine Learning – Hands-on Training

Get hands-on experience with the latest AI tools and technologies in our intensive workshop, designed and delivered by an industry experienced professional.

In this workshop training will provide you with the tools to:

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

Upon course completion you will be able to:

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



Mohammad Islam
Associate Director, Optum – United Healthcare Inc.
New Jersey, USA

Mohammad Islam brings over 20 years of diverse industry experience to his role as Associate Director at UnitedHealth Group, USA. His background spans insurance, finance, retail, humanitarian, and manufacturing, equipping him with a unique perspective and adaptability. As an engineer and software expert, he boasts over 15 years of IT portfolio/program management expertise, including agile, SDLC, RAD, and kanban methodologies. Recognized by certifications like Data Scientist in Python, AI Toolkit Scikit Learn, Tensor flow and Keras, SPC®, PMP®, ACP®, and CSM®, his previous roles include working with Bank of America – Merrill Lynch, Walmart, and the United Nations WFP. Mohammad's leadership extends beyond technical expertise, managing in-house and offshore teams across Russia, India, Ireland, Italy, and the US. Additionally, he holds a US patent on wireless GPS mapping

and has published in prestigious journals.

Thursday, June 7, 2024, 8:00 – 10:00 am (Onsite Room 4)

Workshop on Smart and Micro Grid by Dr. Tariq Masood



Dr. Tariq Masood, M.Phil.,PhD, P.E(UK)
Assistant Professor, Department of Engineering
Frostburg State University, Frostburg, Maryland

Dr. Tariq Masood received the M. Eng, M. Phil, in Electrical power system engineering (Smart Grid + Renewable Distributed Power generation) and Ph.D. in Electrical power system (SMART & Microgrid) from the University of Bath, Bath, UK. He is a Chartered Engineer registered with royal engineering council, UK and Senior Member of the IEEE-USA and Member of the IET-UK. He is also certified member of the CET International USA and registered member of the ASCET (American Society of Certified Engineers and Technicians) USA, also Senior member of American Institute of Chemical Engineers. Dr. Masood is serving as an Asst. Professor (Tenured-Track) at Frostburg State University, Frostburg, Maryland. A versatile, collaborative, accomplished, and knowledgeable

professional with a successful track record as a Professional Engineer/Academician in Electrical Power Systems/ Process Control Systems (Smart, Microgrid, & Renewable Energy Resources Integrated with Artificial Intelligence) He has also contributed as a Visiting & Adjunct Professor, and Invited speaker, at OIT, UTT, Texas A&M Qatar, UTA, TTU, UND, UB and UDC, in the United States of America. He joined the Qatar Petroleum since 1997 where he served as a Technical Coordinator Operations/Advisor Qatar Petroleum He is/has been on several Asset Integrity department technical and management committees' member. He is also member of BPTC (Best Practices Technical Committee) under the patronage of H.E: Dr. Mohd Saleh Al-Sada Minister of Energy and Industry Qatar. He has published more than 68 technical research papers in IEEE Conference, Journal, Honeywell Users group and other International Conferences and three comprehensive books on Micro control at Macro level on SMART GRID based FACTS Technology. He received several awards in recognition of his outstanding performance and dedication to improve Qatar Petroleum production operations and control, two Mubarak awards received from H.E Minster of Energy and Industry and three Al-Hasba Awards received from Director Operations Qatar Petroleum. He was the secretary for the GCC oil producing companies (QP-Qatar, PDO-Oman ARAMCO-Saudi Arabia, KOC-Kuwait, TATWEER-Bahrain, and ADNOC-United Arab Emirates) Production and Maintenance Technical Committee in 2008 and 2011. Research interest: SMART GRID control and optimization of process operations of FACTS controllers, financial markets, renewable resources and control system restructuring, computational intelligence, centralized & decentralized control, large scale optimization and modelling, decision analysis: He is also serving as an Associate Editor IEEE Access (Impact Factor 3.44).

Thursday, June 7, 2024, 8:00 – 10:00 am (Onsite Room 4)

Six Sigma Workshop



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

Dr. Ahad Ali is an Associate Professor and Director of Bachelor of Science in Industrial Engineering and Master of Science in Industrial Engineering in the A. Leon Linton Department of Mechanical, Robotics and 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, lean, CAE and GD&T and. He is a member of ASEE, IEEE, IEOM, INFORMS, and SME.

Thursday, June 6, 2024, 2:00 – 4:00 pm (Onsite Room 1)

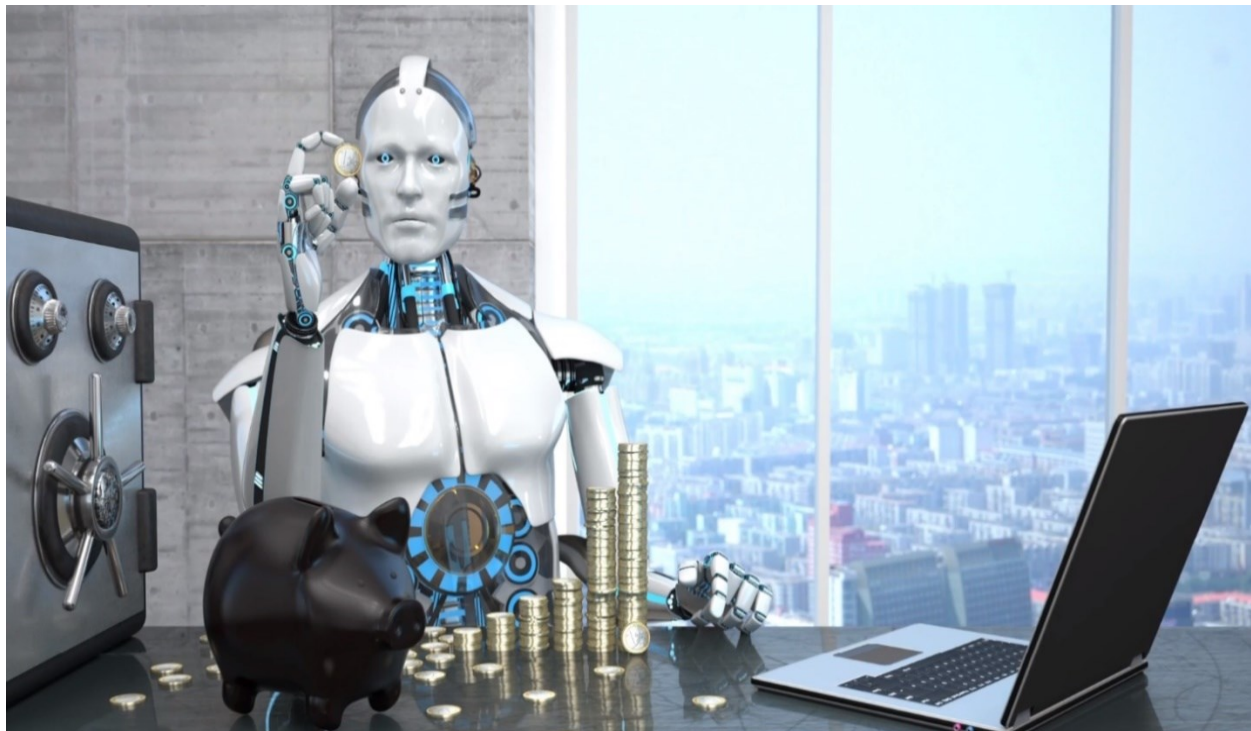
UNIVERSITY OF THE
DISTRICT OF COLUMBIA
SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION



Welcome to Social Robotics Workshop!

Workshop Organizers: Dr. Anshu Arora and Dr. Amit Arora

Robotics is a vast and growing field with diverse applications already being realized and others to come. In this course, we aim to introduce you to the myriad considerations a social roboticist would need to keep in mind when introducing robotics into a new area. The traditional place for robots, the factory floor, is seeing record numbers. According to the International Federation of Robots, there are somewhere around 1.8 million industrial robots in operation around the world today. But there are actually 30 million robots in US homes. And that's not even counting the Alexas, the Siris, the smart home devices, the sidewalk delivery robots, the grocery store robots, the apartment security guard robots, the hospital service robots that many of us are increasingly encountering, as we visit friends, as we run errands, and as we go shopping. And soon, even your front yard and your neighborhood may be swarming with drones. NASA, as well as entrepreneurs and industry leaders, are working quickly to open up our skies to urban air mobility where drones can deliver small packages and passengers can zip across town in the air over the traffic. So, the way to make this new breed of robots is not to build arbitrarily smarter or more powerful robots, but to rethink what we expect from the technology. Further, the meteoric growth in artificial intelligence and the rise of human-robot interaction (HRI) has increased the demand for professionals who can harness the massive power of robotics and automation.



Thursday, June 6, 2024, 2:00 – 4:00 pm (Onsite Room 1)

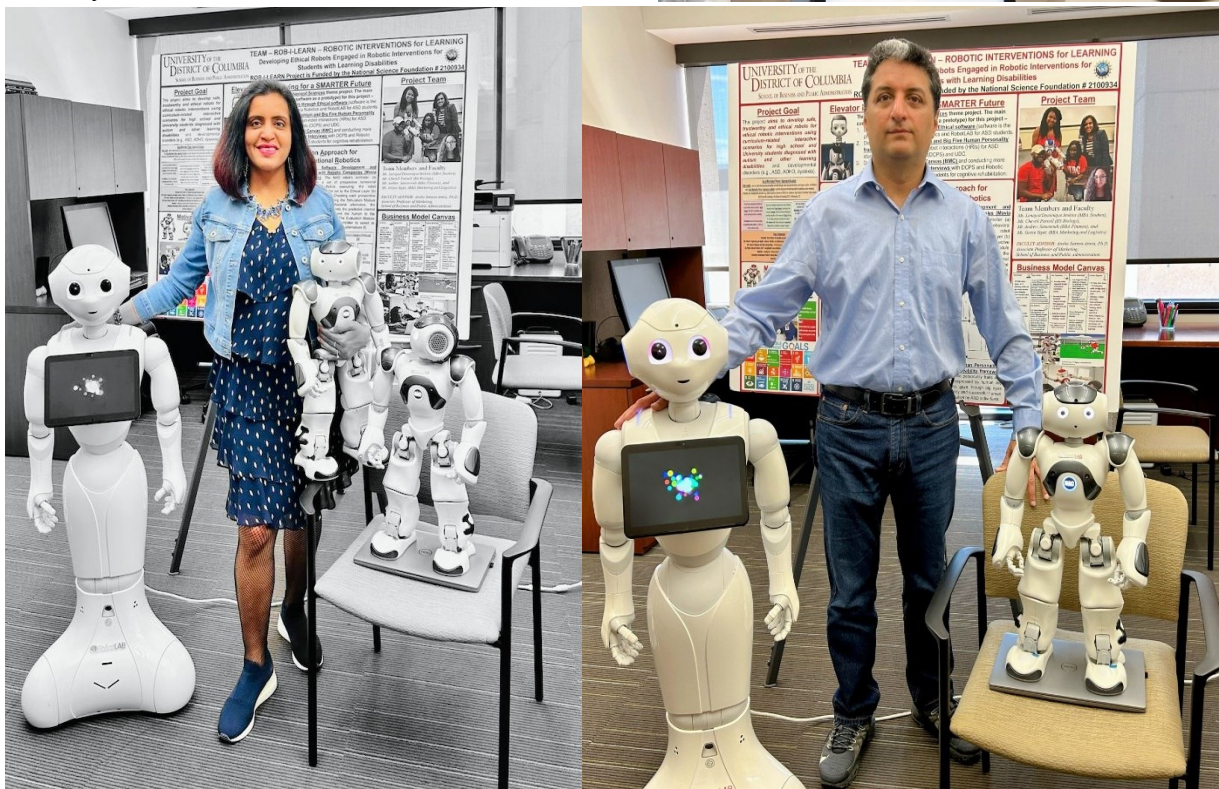


Organizations need talent with the right combination of skills to bridge the technical aspects of robotics and the strategic imperative for business cases. This workshop offers an immersive curriculum where you can strengthen your understanding of real-world social robotic systems, human-robot interaction, and the very real challenges of implementing robotic systems in society.

Workshop Learning Outcomes

Specifically, this program will help you to:

- Explore social robotic systems and the construct of anthropomorphism.
- Explore social robotic systems and the constructs of intentionality and sociality.
- Explore social robotic systems and the construct of xenocentrism.
- Explore social robotic systems and the construct of human personality traits and how these differential personality traits impact the way humans interact with robots.



Thursday, June 6, 2024, 2:00 – 4:00 pm (Onsite Room 1)

UNIVERSITY OF THE
DISTRICT OF COLUMBIA
SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION



WORKSHOP SPEAKERS



Anshu Saxena Arora, Ph.D., PMP is the Tenured Associate Professor of Marketing at the School of Business and Public Administration in the University of the District of Columbia (UDC), Washington, DC. She is the Director of the AI, Social Robotics, and Behavioral Research Lab @ UDC, funded by the National Science Foundation. Dr. Arora is the Senior Editor for Marketing Area for the International Journal of Emerging Markets (IJoEM) published by Emerald Publications, United Kingdom. She is the Series Editor for International Marketing and Management Research published by Palgrave Macmillan - Springer

Nature, UK. She has published more than 55 research papers in national and international journals of repute, and has presented more than 70 papers in esteemed national and international conferences.



Amit Arora, Ph.D. is Associate Professor of Supply Chain Management in the School of Business and Public Administration at the University of the District of Columbia (UDC). Previously, he was an Associate Professor and Co-Director of Nicholas J. Giuffre Center for Supply Chain Management at Bloomsburg University (BU). Prior to joining BU, he was Assistant Professor and Director of Global Logistics & International Business Education and Research Center at Savannah State University. He is a

certified SCOR (Supply Chain Operations Reference) scholar by the Supply Chain Council. He teaches courses in Transportation, Logistics, Operations, Supply Chain Management, Innovation, Technology, Quality, Strategic Management, and Business Research.

Panel Sessions

Intelligence Maintenance and Reliability Panel

Tuesday, June 4, 2024, 2:00 – 3:45 pm – Room 1 (Onsite)

Panel Chair



Aaron Rubel, M.S.E.M.
University Research & Technology Partnerships Manager – Airbus Americas
Past Head of Aircraft Maintenance Programs Development
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 served 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.

Panel Speaker I



Eric
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.

Panel Speaker II



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

Dr. Ahad Ali is an Associate Professor and Director of Bachelor of Science in Industrial Engineering and Master of Science in Industrial Engineering in the A. Leon Linton Department of Mechanical, Robotics and 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, lean, CAE and GD&T and. He is a member of ASEE, IEEE, IEOM, INFORMS, and SME.

Panel Speaker III

Panel Speaker IV

Global Engineering Education Panel

Wednesday, June 4, 2024, 2:00 – 5:45 pm – Room 3 (Onsite)

Panel Chair



Professor Don Reimer
Chief Operating Officer
IEOM Society International
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



Anjum Ali, Ph.D.
Former Professor of EE, FAST-NU, Lahore, Pakistan
Former Professor, ECE, KICS, UET, Lahore, Pakistan
Former Associate Professor of EE, Mercer University, MACON, GA, USA
Former Associate Professor of CSE, LUMS, Lahore, Pakistan

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. As a tenured ECE faculty member at Mercer University (1988-1999), he developed and taught a number of computer engineering courses, starting from the first undergraduate course in the area to various advanced 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 (on leave from Mercer University). 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 also developed teaching materials related to courses in computer architecture for the Virtual University of Pakistan. 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 served as the convener of the National HEC Computer Engineering curriculum development committee. The HEC committee (NCRG) developed and finalized the 2009 HEC Computer Engineering Curriculum for all Pakistani universities. Dr. Anjum Ali has given lectures as a "Distinguished Speaker" at the Global Engineering Education forum during four international IEOM conferences. 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.

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, 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.

Panel Speaker III



Dr. Ariela Sofer
Professor and Divisional Dean
Volgenau School of Engineering
College of Engineering and Computing
George Mason University
Fairfax, VA 22030

Professor Ariela Sofer is Divisional Dean of the Volgenau School of Engineering in the College of Engineering and Computing at George Mason University. Previously she served as Interim Dean of the School (Nov. 2020-May 2023) and as Associate Dean for Administration and Faculty Affairs of the School (May 2018-May 2023). Prior to that she served almost 16 years (Jan. 2002-August 2017) as Chair of the Systems Engineering and Operations Research (SEOR) Department at Mason. Dr. Sofer received the B.Sc. in mathematics, and the M.Sc. in operations research from the Technion in Israel. She received the D.Sc. degree in operations research from the George Washington University in 1984, and joined Mason upon graduation. Her major areas of interest are nonlinear programming, optimization in medical applications, and systems thinking. She has also been involved in various airport design problems.

Dr. Sofer is Vice President for Meetings of the Institute of Operations Research and Management Science (INFORMS). She was a member of the Executive Board of the International Federation of Engineering Education Societies (IFEES) (2018-2022). She was Chair of the INFORMS Fellows Selection Committee (2021) and co-General Chair of the 2020 INFORMS Annual Meeting. She has previously served (2017-2020 and 2022) as a member of the Board of Directors of the International Council on Systems Engineering (INCOSE) as Director of Academic Matters. She has also served as Secretary of the Institute of Industrial and Systems Engineers (IISE) (2014-2017) and as Vice President for Sections and Societies of INFORMS. She has also served as Chair of the Association of Chairs of Operations Research Departments (ACORD), as Chair of the INFORMS Computing Society and as Secretary/ Treasurer of the SIAM Special Interest Group on Optimization SIAG/OPT. She has served as Associate Editor of the INFORMS journals Operations Research, and Management Science and as a member of the editorial boards of MOS-SIAM Book Series on Optimization, and the SEBoK Systems Engineering Body of Knowledge. She was co-chair of the SIAM Conference on Optimization held in 2002 in Toronto Canada, and co-chair of the 3rd International Conference on Model-Based Systems Engineering held in Fairfax, Virginia, 2010. She has been affiliated with the Simulation Group in the Department of Radiology, at Georgetown University Medical Center.

Dr. Sofer was elected Fellow of INFORMS in 2016, Fellow of IISE in 2018, and Fellow of INCOSE in 2022.



Esther Ososanya, Ph.D.
Department Chair and Professor of Electrical Engineering
School of Engineering and Applied Sciences
University of the District of Columbia
Washington, DC, USA

ESTHER OSOSANYA received the Ph.D. degree in electrical engineering from the University of Bradford, U.K., in 1985. She was a Postdoctoral Research Fellow with the University of Birmingham, U.K. She was a Visiting Professor with Michigan Technological University for five years and an Associate Professor with Tennessee Technological University for seven years prior to arriving at the University of the District of Columbia, in Fall 2001. She is currently a Professor of electrical and computer engineering with the University of the District of Columbia, Washington, DC, USA. During her career, she has worked for private industry as a Circuit Development Engineer and a Software Engineer, in addition to her academic activities. In recent years, she has worked with colleagues to

apply these technologies to biomass research, solar cells efficiency capture research, and renewable energy curriculum developments. Her research interests include new applications for VLSI ASIC design, computer architecture, embedded systems design, nanotechnology, and renewable energy systems.

Diversity and Inclusion Panel sponsored by Ford Motor Company

Wednesday, June 5, 2024, 4:00 – 5:45 pm – Room 3 (Onsite)

Panel Chair:



Professor Don Reimer
Chief Operating Officer
IEOM Society International
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



Esther Ososanya, Ph.D.
Department Chair and Professor of Electrical Engineering
School of Engineering and Applied Sciences
University of the District of Columbia
Washington, DC, USA

ESTHER OSOSANYA received the Ph.D. degree in electrical engineering from the University of Bradford, U.K., in 1985. She was a Postdoctoral Research Fellow with the University of Birmingham, U.K. She was a Visiting Professor with Michigan Technological University for five years and an Associate Professor with Tennessee Technological University for seven years prior to arriving at the University of the District of Columbia, in Fall 2001. She is currently a Professor of electrical and computer engineering with the University of the District of Columbia, Washington, DC, USA. During her career, she has worked for private industry as a Circuit Development Engineer and a Software Engineer, in addition to her academic activities. In recent years, she has worked with colleagues to apply these technologies to biomass research, solar cells efficiency capture research, and renewable energy

curriculum developments. Her research interests include new applications for VLSI ASIC design, computer architecture, embedded systems design, nanotechnology, and renewable energy systems.

Panel Speaker II



Dr. Wilkistar Otieno
Associate Professor, Industrial and Manufacturing Engineering
Co-Director (Co-PI), UWM Industrial Assessment Center
Director, NSF/S-STEM: Preparing Engineers Computer Scientists

Wilkistar Otieno is an Associate Professor at the University of Wisconsin-Milwaukee. Her research interests include Industrial Internet of Things and Connected Systems, Sustainable Manufacturing, Remanufacturing, Reliability Engineering, Renewable Energies and Engineering Education. She is the PI of the NSF S-STEM Scholarship Program at UWM, she is also the advisor of the INFORMS, SWE and WEE student chapters at UWM and is one of the faculty mentor of the NSF-WiscAMP program at UWM.

Panel Speaker III

Conference Committee

Conference Chairs

Dr. Devdas Shetty, Dean of the School of Engineering and Applied Sciences and Professor of Mechanical Engineering, University of the District of Columbia (UDC), Washington, DC, USA
 Dr. Ahad Ali, Associate Professor, Director of Industrial Engineering Program, Lawrence Technological University, Southfield, Michigan, USA

Program Chairs

Professor Don Reimer, Chief Operating Officer, IEOM Society
 Dr. Wilkistar Otieno, University of Wisconsin, Milwaukee, USA
 Dr. Hayder Zghair, Southern Arkansas University, USA
 Dr. Mukti M. Rana, Delaware State University, Dover, DE 19901, USA

Organizing Committee

Dr. Anshu Arora
 Dr. Amit Arora
 Dr. Hossain Azam
 Dr. Pradeep Behera
 Ms. Uzma Amir
 Mr. Mohammad Mannan
 Dr. Nian Zhang
 Dr. Paul Cotae
 Dr. Amir Shahirinia
 Dr. Esther Ososanya
 Dr. Ji Chen
 Dr. Alexander Peebles

2025 Conference Chair – 10th North American IEOM Conference at UCF

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

2026 Conference Chair – 11th North American IEOM Conference

Dr. Wilkistar Otieno, Associate Professor, Industrial and Manufacturing Engineering, University of Wisconsin, Milwaukee, USA

Program Committee

Dr. Ahm Shamsuzzoha, University of Vaasa, Finland
 Dr. Hamdi Bashir, University of Sharjah, UAE
 Dr. Linda Zhang, IÉSEG School of Management – Business School, France
 Dr. Mohamed Wahab Mohamed Ismail, Toronto Metropolitan Univ., Canada
 Dr. Salah Haridy, Associate Professor, University of Sharjah, UAE
 Dr. Sharifu Ura, Kitami Institute of Technology, Japan
 Dr. Akif A. Bulgak, Concordia University, Canada
 Dr. Amir Kordijazi, University of Southern Maine, USA
 Dr. Anwar Rahman, CCSU
 Dr. Ben A. Chaouch, University of Windsor, Canada
 Dr. Dusan Sormaz, Professor Emeritus at Ohio University, Athens, Ohio, USA
 Dr. Luis Rabelo, University of Central Florida, Orlando, FL, USA
 Dr. Mahmoud Awad, American University of Sharjah, UAE
 Dr. Mohammad Shamsuzzaman, University of Sharjah, UAE
 Dr. Mohammed Fazole Baki, University of Windsor, Canada
 Dr. Mukti M. Rana, Delaware State University, Dover, DE 19901, USA
 Dr. Onur Kuzgunkaya, Concordia University, Canada
 Dr. Taj, FL Poly University, USA

North American Academic Committee (NAAC)

Abdul Mannan, Adjunct Professor, UDC, Washington DC, USA
 Abdulaziz Ahmed, Program Director, Univ. of Minnesota Crookston, USA
 Abdur Rahim, University of New Brunswick, Canada
 Abu Masud, Wichita State University, Kansas, USA
 Adedeji Badiru, Dean, Graduate School of Engineering and Management, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA
 Ahmad Elshennawy, University of Central Florida, Orlando, FL, USA
 Ali Elkamel, University of Waterloo, Waterloo, Ontario, Canada
 Alireza Ghasemi, Dalhousie University, Halifax, NS, Canada
 AMM Nazmul Ahsan, Western Carolina University, Cullowhee, NC, USA
 Arun N. Nambiar, California State University – Fresno, USA
 Azadeh Marouf-mashat, University of Waterloo, Canada
 Basel Alsayyed, University of Alberta, Edmonton, Canada
 Brigitte Jaumard, Concordia University, Canada
 Cesar Acosta, University of Southern California, Los Angeles, California
 Daniel M. Ferguson, Purdue University, West Lafayette, Indiana
 Devashis Mitra, University of New Brunswick, Fredericton, Canada
 Doga Demirel, FL Poly
 Doga Demirel, Florida Polytechnic University, Florida, USA
 Eui H. Park, North Carolina A&T State University, USA
 Farouq Alhourani, University of Tampa, Florida

Farshid Azadian, Embry-Riddle Aeronautical University, Daytona Beach, FL
 Hamid Parsaei, Texas A&M University (College Station)
 Hamid Seifoddini, University of Wisconsin-Milwaukee, USA
 Hayder Zghair, Southern Arkansas University, USA
 Jacqueline Chestnut, North Carolina A&T State University, Greensboro, NC
 Jay Lee, University of Maryland College Park
 Jim Mennie, FL Poly
 Jing Hou, FL Poly
 Laurent Tchommo, James Madison University, VA, USA
 Leonard Perry, University of San Diego, USA
 Leslie Monplaisir, Chair of IME at Wayne State University, Detroit, USA
 Luis Rocha-Lona, Instituto Politécnico Nacional, Mexico City, México
 Luz Maria Valdez de la Rosa, Universidad de Monterrey, Monterrey, Mexico
 M. Affan Badar, Indiana State University, Terre Haute, Indiana, USA
 M. El-Shark, University of South Alabama, Mobile, AL
 Mahdi Fathi, University of North Texas, Denton, Texas
 Masud Rana, Delaware State University
 Mohamed Awwad, University of Buffalo, New York
 Mohammad Ashraf Hossain Sadi, University of Central Missouri, Kansas City
 Mohammad Dehghani, Northeastern University, Boston, Massachusetts
 Mohammad Marufuzzaman, Mississippi State University, USA
 Mohammed Ahmed, Eastern Michigan University, Ypsilanti, Michigan, USA
 Mojtaba Pasha, University of Calgary, Canada
 Muztoba A. Khan, Carroll University, Waukesha, Wisconsin, USA
 Niamat Hossain, Arkansas State University
 Qipeng Phil Zheng, University of Central Florida, Orlando, USA
 Rami Harik, University of South Carolina, USA
 Reinaldo Sanchez-Arias, Florida Polytechnic University, Florida, USA
 Reza Akhavian, California State University, East Bay
 Ronald G. Askin, Arizona State University, USA
 Sampson Gholston, University of Alabama in Huntsville
 Sanchez-Arias, FL Poly
 Seyed A. Niknam, Western New England University, Springfield, MA
 Shahram Taj, Florida Polytechnic University, USA
 Soumaya Yacout, École Polytechnique de Montréal, Canada
 Theodore B. Trafalis, University of Oklahoma, USA
 Vahab Vahdat, Northeastern University, USA

Technical Committee and Reviewers

Abdulaziz Ahmed, University of Minnesota
 Abdullah-Al-Muti Fakruddin, Asian Institute of Technology
 Abedeh Gholidoust, University Canada West
 Abigail Bowers Florida Polytechnic University
 Adekunle Jinadu, Square Engineering Limited
 Adel Fadhel, Northeastern University
 Ademola Abodunrin, Morgan State University
 Afia Farjana, University of South Dakota
 Ahmad Elshennawy, University of Central Florida
 Ahmad Badawy Saluy, Universitas Mercu Buana
 Ahmed Alsaadi Wichita State University
 Ahmed Azab, University of Windsor
 Ahmed Aziz Ezzat, Rutgers, The State University of NJ
 Ahmed CHERIFI ÉTS, Morocco
 Ahmed Gailan Qasem, Binghamton University
 Ahmed Maged, University of North Texas, Denton, Texas, United States.
 Ainyngaran Chockalingam, University at Buffalo, State University of New York
 Akbar Eslami, Elizabeth City State University
 Alberto Betancourt, University of Waterloo
 Aldo McLean University of Tennessee at Chattanooga
 Ali Alshehri, University of Missouri-Columbia
 Alireza Farhang Doost, Dalhousie University
 Allen Greenwood, Poznan University of Technology
 Alyssa Andrzejewski, Penn State Behrend
 Anak Agung Ngurah Perwira Redi, Sampoerna University, Indonesia
 Anissa Frini, Université du Québec à Rimouski
 Anjali Awasthi, Concordia University, Montreal
 Anjum Ali, FAST-NUCES
 Anna Paula Galvao Scheidegger, Texas A&M University
 Armando Chávez Flores, Tecnológico de Monterrey
 Armando Elizondo-Noriega, Texas Tech University
 Armstrong Aboah, University of Arizona-Tucson
 Arvin Shadravan, Texas A&M University
 Ashutosh Devulkar, California Polytechnic State University, San Luis Obispo
 Barbara Barros, Polytechnic University of Puerto Rico
 Bashar AbdulNour, Kettering University
 Bassou El Mansour, Indiana State University
 Bilquis Ferdousi, Eastern Michigan University
 Brianna Charlot, Michigan Technological University
 Brittney Jimerson, North Carolina A&T State University
 Camille Garlick, California Polytechnic State University, San Luis Obispo
 Catherine Amelink, Virginia Tech
 Cesar Acosta-Mejia, University of Southern California
 Chamila Dissanayake, Pennsylvania State University

Christian Chamoun, California State University Northridge
 Chumpol Yuangyai, King Mongkut's Institute of Technology, Thailand
 Claver Diallo, Dalhousie University
 Daniel Granot, Sauder School of Business, University of British Columbia
 Daoud Ait Kadi, Universite Laval
 David Evans, Minnesota State University Mankato
 Diana Abbasi, Auburn University
 Dima Jawad, Ontario Tech University
 Dina Natalia Prayogo, University of Surabaya, Indonesia
 Sujana Piya, University of Sharjah, UAE
 E Shir Donaldson, University of Michigan Flint
 Edgar Avalos-Gauna, Rice University
 Edward Huang, George Mason University
 Egbe-Etu Etu, San Jose State University
 Elif Elcin Gunay, Iowa State University
 Emad Abualsaud, Taibah University
 Eman Almehdawe, University of Regina
 Eric Wibisono, University of Surabaya, Indonesia
 Esther Adeyemi, University of Dayton
 Farah Altarazi, The State University of New York at Binghamton
 Farhad Azadivar, University of Massachusetts
 Farnaz Ghazi Nezami, Kettering University
 Farshid Azadian, Embry-Riddle University, College of Business
 Farzad Jalali, Penn State Behrend
 Francis Andoh-Baidoo, The University of Texas Rio Grande Valley
 Garrick Cabour, Polytechnique Montreal
 Gaurav Ghosh, Minnesota State University– Mankato, MN
 Gita Ayu, Arizona State University
 Goksu Avdan, Southern Illinois University Edwardsville
 Golam Kabir, University of Regina
 Hamed Akbarpour, Pennsylvania State University
 Hamza Adeinat, University of Scranton
 Hanen Shall, AUM, Kuwait
 Hari Elangeswaran, Bradley University
 Hengameh Fakhravar, Old Dominion University
 Honey Bhatia, University of Alberta
 Hossein Beheshti Fagher, Laval University Quebec Canada
 Hossein Goudarzi, University of New Mexico
 Hussein A. Taha Polytechnique Montréal
 Huzef Maqsoodali Kadri, University at Buffalo
 Ilyes Boukhaibet, AUM, Kuwait
 Isaac Atuahene, University of Tennessee
 Ishak Abd Azid, Universiti Sains Malaysia
 Ivan Kristianto Singgih, University of Surabaya, Indonesia
 Jack Krivitsky, University of New Haven
 Jacques A. Ferland, University of Montreal
 Jamal Bari, Eastern Michigan University
 James Ejiwale, Jackson State University
 Jamil Abdo, Frostburg State University
 Javier Gonzalez-Sanchez, Arizona State University
 Jerry Diabor, Bowie State University
 Jinkala Chandra, Marshall University
 John Carlsson, University of Southern California
 Johnson Adebayo Fadeyi, Wayne State University
 Jonathan Cabrera Universidad Ana G. Mendez
 Jose Espiritu Texas A&M University at Kingsville
 Jose Holguin-Veras, Rensselaer Polytechnic Institute
 Joshua Akinwamide, The federal polytechnic Ado-Ekiti
 Juvani Downer The University Of the District OF Columbia
 Kalkidan Gebrehiwot, Methodist University
 Kasim Korkmaz, Eastern Michigan University
 Kaverinathan Dhanapal, New Mexico State University
 Kelechi Eze, Prairie View A&M University
 Kennedy Barnes Ecotek Laboratory
 Kenneth Blocker, University of Illinois at Urbana-Champaign
 Kent Derbyshire, University of Tennessee at Chattanooga
 Khadija Elsewedy, Northeastern University
 Kingsley Gnanendran, University of Scranton
 Kudret Demirli Concordia University
 Leonardo Bedoya-Valencia, Colorado State University – Pueblo
 Leslie Monplaisir, Wayne State University
 Lidia Filus, Northeastern Illinois University
 Lucas Braga Carani, Florida State University
 Mahmoud Awad, American University of Sharjah
 Marek Balazinski, Polytechnique de Montreal
 Margaret Brandeau, Stanford University
 Maria Ibanez, Northwestern University
 Mark Ricard, University of Texas at Arlington
 Mary Acosta University of Puerto Rico at Mayagüez
 Mastoor Abushaega, University of Oklahoma
 Md Rasedul Islam, University of Wisconsin Milwaukee
 Meshal Alotaibi University of Kansas
 Michael Walter Button, University of Calgary
 Michel Gendreau, Université de Montréal
 Miguel Jaller, University of California Davis
 Milad Jasemi, University of Montevallo
 Mohamed Elnoor University of Maryland
 Mohamed Alblooshi, Zayed University, UAE
 Mohamed Dhia Eddine Baccouche, Université Laval
 Mohammad Jahanbakht, University of Texas at Arlington
 Mohammad Javed Pervaiz Bappy, Louisiana Tech University
 Mohammad Khadem, University of Sharjah, UAE
 Mohammad Shamsuzzaman, University of Sharjah, UAE
 Mohammed Alrezaq, Virginia Tech
 Mohammed Alsharqawi, Township of South Stormont
 Mohammed Baaoum, King Fahd University / Virginia Tech State University
 Mondher Hachicha, University of Sfax
 Morris Girgis, Central State University
 Mostafa Ghafoorvarzaneh, University of Tennessee-Knoxville
 Muhammad Ahmed, Eastern Michigan University
 Muhammad Fazal Ijaz, Melbourne Institute of Technology, Victoria, Australia
 Murat Kucukvar, Qatar University
 Nadhira Khezami, American University of the Middle East, Kuwait
 Nadia Bhuiyan, Concordia University
 Nadiye Erdil, University of New Haven
 Nagi Gebraeel, Georgia Institute of Technology
 Natali Ann Camacho Cruz, Polytechnic University of Puerto Rico
 Navid Ghaffarzadegan, Virginia Tech
 Nayan Chakrabarty, University of Arkansas
 Nazmul Ahsan, Western Carolina University
 Neal Bachman, Memorial Hermann
 Nicholas Bambos Stanford University
 Nicole Co, Ateneo de Manila University
 Nourredine Boubekri, University of North Texas
 Omar Abbaas The University of Texas at San Antonio
 Omar Galil, Florida Institute of Technology
 Onome Edo, Auburn University at Montgomery
 Osama Elfar, École Polytechnique de Montréal
 Parag Gandhi, University of Pittsburgh
 Paul Compton, The University of Texas at Arlington
 Peter Eikhoury, Ontario Tech University
 Priyanka Annapureddy Kenco Logistics, Chattanooga, TN
 Rachel Chai, University of South Alabama
 Rafael Diaz, Old Dominion University
 Ridwan Aydin, University of Sharjah, UAE
 Rodrigo Augusto dos Santos, The University of Texas at Arlington
 Rogelio Emmanuel Jauregui Miramontes, University of Toronto
 Saeid Abbasiparizi, Laval University
 Saeid Delshad Sisi, Clemson University
 Safae Er-Rbib UQAR
 Said Echchakoui, Université du Québec à Rimouski
 Sajad Ebrahimi, North Dakota State University
 Salah Haridy, University of Sharjah, UAE
 Samuel Bassetto, Ecole Polytechnique
 Sandip Agarwalla, Malaviya National Institute of Technology Jaipur
 Sanjeev Adhikari, Kennesaw State University
 Sanjith Gopalakrishnan McGill University
 Sara Babae Wilfrid Laurier University
 Sarah Ali, Loyola University Chicago
 Sandra Braxton, Jones International University
 Semih Boz, University of Massachusetts Amherst
 Seyed Ehsan Elahi, University of Massachusetts, Boston
 Shantanu Dutta, University of Ottawa
 Sharon Bommer, University of Dayton
 Shubhada Deshmukh, Vishwakarma Institute of Technology
 Sila Cetinkaya, Southern Methodist University
 Solomon Edo, University of Arizona
 Soufiane Chami University of North Dakota
 Srinivas Ganapathyraju Sheridan Institute of Technology
 Sterling Jones, Buffalo State University
 Sudhakar Deshmukh, Kellogg School of Management
 Sunjae Choi, Purdue University
 Suzan Alaswad, Zayed University, UAE
 Syed Hasib Akhter, Faruqi Sam Houston State University
 Tanner Funderburk, Northwestern State University
 Terril Falls, Mississippi State University
 Tiffany Fuzak, Buffalo State College
 Timothy Greene Western Michigan University
 Tobias Goulet University of the District of Columbia
 Tomas Agustin Bas, Polytechnique Montreal University
 Travis Forgach University of Michigan
 Umme Salma Ferdousi, University of Wyoming
 Valeria Jaqueline Ocegueda Castillo, Cape Breton University
 Vincent Johns Jr., University of Michigan Flint
 Walid Abdul-Kader, University of Windsor
 Wallace Burns, American Military University
 Wenqi Deng, University of Michigan – Dearborn
 Xiyue Deng, Southern Illinois University Edwardsville
 Yanu Endar Prasetyo, University of Missouri
 Yoo-Sang Chang, North Carolina A&T State University
 Yuhao Huang, University at Buffalo
 Yuvraj Gajpal, University of Manitoba
 Zehra Canan Araci, University of Sharjah, UAE
 Ziaul Huq, University of Nebraska at Omaha, USA

Global Engineering Education

2:00 – 3:40 pm, June 5, 2024 – Meeting Room 3 (Onsite)

Session Chair: Professor Don Reimer



Anjum Ali, Ph.D.

Former Professor of EE, FAST-NU, Lahore, Pakistan

Former Professor, ECE, KICS, UET, Lahore, Pakistan

Former Associate Professor of EE, Mercer University, MACON, GA, USA

Former Associate Professor of CSE, LUMS, Lahore, Pakistan

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. As a tenured ECE faculty member at Mercer University (1988-1999), he developed and taught a number of computer engineering courses, starting from the first undergraduate course in the area to various advanced 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 (on leave from Mercer University). 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 also developed teaching materials related to courses in computer architecture for the Virtual University of Pakistan. 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 served as the convener of the National HEC Computer Engineering curriculum development committee. The HEC committee (NCR) developed and finalized the 2009 HEC Computer Engineering Curriculum for all Pakistani universities. Dr. Anjum Ali has given lectures as a "Distinguished Speaker" at the Global Engineering Education forum during four international IEOM conferences. 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.



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, 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.



Esther Ososanya, Ph.D.

Department Chair and Professor of Electrical Engineering

School of Engineering and Applied Sciences

University of the District of Columbia

Washington, DC, USA

ESTHER OSOSANYA received the Ph.D. degree in electrical engineering from the University of Bradford, U.K., in 1985. She was a Postdoctoral Research Fellow with the University of Birmingham, U.K. She was a Visiting Professor with Michigan Technological University for five years and an Associate Professor with Tennessee Technological University for seven years prior to arriving at the University of the District of Columbia, in Fall 2001. She is currently a Professor of electrical and computer engineering with the University of the District of Columbia, Washington,

DC, USA. During her career, she has worked for private industry as a Circuit Development Engineer and a Software Engineer, in addition to her academic activities. In recent years, she has worked with colleagues to apply these technologies to biomass research, solar cells efficiency capture research, and renewable energy curriculum developments. Her research interests include new applications for VLSI ASIC design, computer architecture, embedded systems design, nanotechnology, and renewable energy systems.



Dr. Ariela Sofer
Professor
Divisional Dean
Volgenau School of Engineering
College of Engineering and Computing
George Mason University
4400 University Drive
Fairfax, VA 22030

Professor Ariela Sofer is Divisional Dean of the Volgenau School of Engineering in the College of Engineering and Computing at George Mason University. Previously she served as Interim Dean of the School (Nov. 2020-May 2023) and as Associate Dean for Administration and Faculty Affairs of the School (May 2018-May 2023). Prior to that she served almost 16 years (Jan. 2002-August 2017) as Chair of the Systems Engineering and Operations Research (SEOR) Department at Mason. Dr. Sofer received the B.Sc. in mathematics, and the M.Sc. in operations research from the Technion in Israel. She received the D.Sc. degree in operations research from the George Washington University in 1984, and joined Mason upon graduation. Her major areas of interest are nonlinear programming, optimization in medical applications, and systems thinking. She has also been involved in various airport design problems.

Dr. Sofer is Vice President for Meetings of the Institute of Operations Research and Management Science (INFORMS). She was a member of the Executive Board of the International Federation of Engineering Education Societies (IFEES) (2018-2022). She was Chair of the INFORMS Fellows Selection Committee (2021) and co-General Chair of the 2020 INFORMS Annual Meeting. She has previously served (2017-2020 and 2022) as a member of the Board of Directors of the International Council on Systems Engineering (INCOSE) as Director of Academic Matters. She has also served as Secretary of the Institute of Industrial and Systems Engineers (IISE) (2014-2017) and as Vice President for Sections and Societies of INFORMS. She has also served as Chair of the Association of Chairs of Operations Research Departments (ACORD), as Chair of the INFORMS Computing Society and as Secretary/ Treasurer of the SIAM Special Interest Group on Optimization SIAG/OPT. She has served as Associate Editor of the INFORMS journals Operations Research, and Management Science and as a member of the editorial boards of MOS-SIAM Book Series on Optimization, and the SEBoK Systems Engineering Body of Knowledge. She was co-chair of the SIAM Conference on Optimization held in 2002 in Toronto Canada, and co-chair of the 3rd International Conference on Model-Based Systems Engineering held in Fairfax, Virginia, 2010. She has been affiliated with the Simulation Group in the Department of Radiology, at Georgetown University Medical Center.

Dr. Sofer was elected Fellow of INFORMS in 2016, Fellow of IISE in 2018, and Fellow of INCOSE in 2022.



Professor Don Reimer
Chief Operating Officer
IEOM Society International
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.

Global Industry Solutions and Industry 4.0

June 4, Tuesday

2:00 – 3:45 pm – Meeting Room 4 (Onsite)

2:00 – 2:20 pm (Tuesday, June 4)



Foad H Khanli

**Director of Quality Assurance, Performance and Business Improvement
Amor Health Services, Inc.**

Brownsville, Texas, USA

Mr. Hosseinkhanli is Director of Quality Assurance, Performance and Business Improvement Amor Health Services, Inc. in Brownsville Texas USA. He was General Manager of Almanah Trading in Doha Qatar Middle East and responsible for all aspects in creation and implementing of successful growth of new market development and turn-key operation for various products. Mr. Hosseinkhanli was involved with financial negotiation with national and international banking, corporation, private sources and trading organization. Volvo International Development Corporation, Gothenburg Sweden, Marketing Director For The Middle Eastern Countries, UAE, Saudi Arabia, Bahrain, Turkey and Iran. Negotiated and established exclusive franchise agreement and turn- key operation. Did market analysis and feasibility studies for Volvo International in the Middle Eastern countries and increase annual sales in excess of 55%. Chief Industrial Engineer, United Carr, manufacturer of plastic knobs for Automotive Industries, Knoxville Tennessee USA. His education background is: Master of Business Administration from IMMEDE Management Institute in Lausanne Switzerland majoring in financing. Bachelor of Science in Industrial and System Engineering from University of Rhode Island in Kingston Rhode Island USA. Certified Business Analyst from International Profit Association in Buffalo Grove IL USA. Certified Six Sigma Green and Black Belt from Institute of Industrial Engineers. Extra Curriculum Activity: Senior Member of Institute of Industrial Engineers, Senior Member of ASQ and Senior Member of Swedish Method and Time Measurement Language: Fluent in English, Swedish, German, Turkish, Farsi and some Spanish.

2:20 – 2:40 pm (Tuesday, June 4)



Farah Altarazi

**Department of Systems Science and Industrial Engineering
Binghamton University, The State University of New York
New York, United States**

Farah Altarazi is a Research Assistant at The State University of New York at Binghamton Research Foundation, and a Ph.D. candidate in Industrial and Systems Engineering at The State University of New York at Binghamton. Farah holds a B.S. in Industrial Engineering from the Jordan University of Science and Technology and a Master's in Industrial Engineering and Management from the University of Jordan. She is a Certified Project Manager (PMP), a Certified Data Scientist, and a Certified Supply Chain Analyst (CSCA). Farah has seven years of experience in project and business fields across various international non-profit organizations and companies in the United States and Jordan, where she gained experience in managing teams and project activities to ensure the timely and cost-effective delivery of different projects. Her research interests encompass data analysis, robotic process automation (RPA), simulation, and optimization. She is an active member of the Project Management Institute (PMI), IEOM Society International, IEEE, Jordan Engineers Association, and Alpha Pi Mu Industrial Engineering Honor Society.

2:40 – 3:00 pm (Tuesday, June 4)

3:00 – 3:20 pm (Tuesday, June 4)

IEOM Submission, Review and Registration System is Supported by:



<https://x-cd.com/>

X-CD Technologies has been supporting the association and conference industry since 1995.

X-CD software modules are proprietary and developed in-house which gives the flexibility to make customized changes to meet all of X-CD's clients' unique needs.

Global Artificial Intelligence and Machine Learning

Distinguished Plenary Speakers

Wednesday, June 5, 2024 – 4:00 – 5:45 pm – Room 4 (Onsite)

Session Chair: Dr. Hayder Zghair

Speaker I



Dr. Hayder Zghair
Assistant Professor of Industrial Engineering
Department of Engineering and Physics
Director of Industrial Engineering Development
College of Science and Engineering
Southern Arkansas University
Magnolia, Arkansas 71753

Dr. Hayder Zghair is an assistant professor of Industrial Engineering in the Department of Engineering and Physics, and the director of Industrial Engineering Development in the College of Science and Engineering at Southern Arkansas University. Before joining SAU, served in several academic appointments including Assistant Teaching Professor of Industrial and Manufacturing Engineering at Pennsylvania State University and lecturer of Industrial and Manufacturing Engineering at Kettering University. Dr. Zghair's research interest covers a wide area of industrial and manufacturing engineering including Flexible-Automated Manufacturing, Robotics, Human Factors and Ergonomics, Sustainability Engineering, Analytical Modeling and Simulation, and Optimization, and has published many journal and conference papers. Dr. Zghair continues to explore new and cutting-edge areas for research and education in engineering disciplines and has recently had an extensive interest in industry 4.0 and 5.0 tech such as AI, IIoT, smart sensors, and cloud computation and control. He also has several professional memberships; ASEE, SAE, and IEOM. Dr. Zghair obtained his Doctor's Degree in Manufacturing Systems Engineering from Lawrence Technological University, Michigan, USA, and has several professional affiliations: Affiliate Researcher at Penn State Institute of Energy and the Environment and Board Member of Division Directors in the Environmental Engineering Division at American Society of Engineering Education (ASEE). Dr. Zghair is the chair of the SAU campus sustainability committee and a member of several committees at the department, college, and university levels.

Speaker II



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

Alper Senol is an experienced Industrial Engineer with over 15 years of expertise in Supply Chain Management and technology integration. His career spans pivotal roles driving digital transformation, optimizing operations, and fostering effective team dynamics. His current research focuses on the integration of advanced technologies in Supply Chain Management to enhance operational efficiencies and quality management. He received his Ph.D. in Industrial Engineering and Management Systems from the University of Central Florida. Professional Vision: Dr. Senol is dedicated to leveraging advanced technologies—such as ERP systems, AI, ML, IoT, Cyber-Physical Systems, and blockchain—within Supply Chain Management. He explores how each technology reshapes operations and contributes to elevating quality management practices. His vision encompasses creating a comprehensive approach that integrates established quality methodologies like TQM, Six Sigma, Lean principles, and ISO standards with these emerging technologies. Alper aims to achieve operational excellence in supply chain activities through this integration, revolutionizing industry practices for sustainable growth and heightened efficiencies.

Speaker 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.

Speaker IV



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

Dr. Assaf Gottlieb 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.

Speaker V



Continuous Innovation

At Eaton, we are continually pursuing new ideas with our current and future technologies to help customers meet their goals. Our valvetrain solutions such as cylinder deactivation and hollow engine valves that are engineered to deliver efficient performance while withstanding the extreme heat requirements. Our supercharger technologies for advanced boosting provide the instant throttle response and improved fuel efficiency customers desire. We are constantly innovating differentiated technologies to provide advanced solutions for the industry and our customers.

www.eaton.com



Global Supply Chain and Logistics

Wednesday, June 5, 8:00 – 9:45 am – Meeting Room 4 (Onsite)

Session Chair: Dr. Muhammad Saad Memon

2:00 – 2:20 am (Wednesday, June 5)

Jeremy Codioli

Vice President, Process Improvement
AVI-SPL
ASCM Supply Chain Leader of the Year
Richmond, Virginia, United States

2:20 – 2:40 am (Wednesday, June 5)



Dr. Muhammad Saad Memon

Associate Professor
Industrial Engineering and Management Dept.
Mehran University of Engineering & Tech
Jamshoro, Sindh, 76062, Pakistan.
Principal Investigator, Supply Chain and Operations Management Research Group

Muhammad Saad Memon is an Associate Professor of Industrial Engineering at Mehran University of Engineering and Technology in Jamshoro, Pakistan with expertise in the areas of resilient and sustainable supply chain management, uncertain and fuzzy production planning, and multi-criteria decision making. Dr. Memon joined the faculty as a Lecturer in 2010. A list of his novel publications includes Group multi-criteria supplier selection using combined grey systems theory and uncertainty theory. Expert Systems with Applications, 42(21), 7951-7959., Sustainable and Resilient Supply Chain Network Design under Disruption Risks. Sustainability, 6(10), 6666-6686.; and Analysis of Traceability Optimization and Shareholder's Profit for Efficient Supply Chain Operation under Product Recall Crisis. Mathematical Problems in Engineering, 2015. Dr. Memon also honoured of listed in Marquis Who's Who in the World 2015, 32nd Edition. Dr. Memon attended Mehran University on a four-year bachelor of the

engineering program, and thereafter graduating with honours, he joined the department of industrial engineering, Mehran University as a Lecturer in 2010. Dr. Memon received a four-year full scholarship for PhD in Industrial Engineering at Hanyang University, Korea in 2012. He successfully completed his PhD in spring-2016 in industrial and management engineering. He published his research work in many journals, book chapters, and conference proceedings (see list at Google scholar).

2:40 – 3:00 am (Wednesday, June 5)



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 Baldrige Quality Award Examiner (Louisiana Quality Foundation), and Certified Transportation & Logistics (American Society of Transport & Logistics). Dr. Rahman is affiliated with ISERC, DSI, AST&L and IEOM.

3:00 – 3:20 am (Wednesday, June 5)

Parallel Sessions

All Times are New Time (USA Eastern Standard Time)

Monday, June 3, 2024 (Competitions and Technical Presentations)

Zoom Room 5 - Virtual	
8:00 am	Undergraduate Student Paper Competition Sponsored by Siemens Undergraduate Research Competition sponsored by Daikin Applied
11:00 am	Doctoral Dissertation Competition sponsored by Airbus Graduate Student Paper Competition sponsored by Eaton Corporation
1:00 pm	Senior Design Project Competition sponsored by Tooling Tech Group

Tuesday, June 4, 2024

	Room 1 – Ballroom (56-113)	Room 2 Onsite (38 102)	Room 3 Onsite (38 103)	Room 4 Onsite (38 106)	Zoom Room 5 - Virtual
8:00	Plenary I	Graduate Student Paper Competition sponsored by Eaton Corporation	Undergraduate Research Competition sponsored by Daikin Applied	Human Factors and Ergonomics Competition sponsored by CINTAS	Artificial Intelligence and Data Science
10:00	Conference Chair Remarks - Devdas Shetty, Ph.D., PE, Dean, School of Engineering and Applied Sciences, Professor of Mechanical Engineering, University of the District of Columbia, Washington, DC, USA				
10:10	IEOM Society Remarks – Professor Don Reimer, Chief Operating Officer, IEOM Society International				
10:20	Keynote I: Eric L. Moore, Ph.D., Deputy to the Commanding General, U.S. Army Combat Capabilities Development Command				
11:00	Keynote II: Javad Mokhbery, CEO, FUTEK Advanced Sensor Technology, Inc., Irvine, California, United States				
11:40	Keynote III: Dr. Vivek Dwivedi, Associate Division Chief for the Mechanical Systems Division (MSD), NASA Goddard Space Flight Center (GSFC)				
12:20	Keynote IV: Mr. Matthew J. Stepura, Systems Engineering and Test Department Head, Naval Air Systems Command				
1:00	Lunch Welcome Address - Maurice D. Edington, Ph.D., 10th President of the University of the District of Columbia				
1:00	Buffet Lunch				
2:00 – 5:00 pm – Poster Session and Poster Competition – Foyer Area					
2:00	Intelligent Maintenance and Reliability Panel	Senior Design Competition Simulation Competition Grad Paper Competition	SCM Competition	Global Industry Solutions and Industry 4.0	Simulation, Optimization and Productivity Improvement
4:00	Innovation and Entrepreneurship Workshop By Prof. Don Reimer	Artificial Intelligence and Data Science	Doctoral Dissertation and MS Thesis Competitions	Digital Manufacturing, Industry 4.0 and IoT	Sustainability, Green Systems and Energy

Wednesday, June 5, 2024

	Room 1 – Ballroom (56-113)	Room 2 – Onsite (38 102)	Room 3 – Onsite (38 103)	Room 4 – Onsite (38 106)	Room 5 - Virtual
8:00	Global Supply Chain and Logistics	Sustainability, Green Systems and Energy	Entrepreneurship and Innovation	Business Management and Operations Management	Business Management and Operations Management
10:00	Keynote V: Jonathan Conrad, Principle AI Researcher – Amazon, Reston, Virginia, United States				
10:40	Keynote VI: Dr. Christopher Cox, P.E., Faculty, Construction Management, College of Engineering and Technology, Western Carolina University, Cullowhee, North Carolina, USA				
11:20	Break				
11:40	Keynote VII: Rachel R. Hughes, MBA, Department Manager, Acquisition Strategy and Management, MITRE Corporation				
12:20	Keynote VIII: Khershed P. Cooper, Ph.D., FASM, FSME, Program Director, Advanced Manufacturing Program, Division of Civil, Mechanical and Manufacturing Innovation (CMMI), Directorate for Engineering (ENG), National Science Foundation (NSF), Alexandria, VA 22314, USA				
1:00	Buffet Lunch				
2:00	AI and Machine Learning Workshop Mohammad Islam Associate Director Optum – United Healthcare Inc., New Jersey, USA	Automation, Robotics and Autonomous Systems	Global Engineering Education	Workshop on Smart and Micro Grid by Dr. Tariq Masood	Manufacturing, Assembly and Design
4:00		Supply Chain and Logistics	Diversity and Inclusion Panel sponsored by Ford Motor Company	Global Artificial Intelligence and Machine Learning	Digital Manufacturing, Industry 4.0 and IoT

Thursday, June 6, 2024

	Room 1 – Ballroom Onsite (56-113)	Room 6 – Onsite (42 A06)	Room 7 – Onsite (42 A09)	Room 8 – Onsite (42 A09A)	Room 5 – Virtual
8:00	Plenary II	Sustainability, Green Systems and Energy	Manufacturing, Assembly and Design	Lean Six Sigma Workshop by Dr. Ahad Ali	Engineering Management and Project Management
10:00	Keynote IX: Robert J. Wenier, Global Head of Cloud and Infrastructure, AstraZeneca Pharmaceuticals LP, Gaithersburg, Maryland, USA				
10:40	Keynote X: Victor R. McCrary, PhD, Vice President for Research, The University of the District of Columbia and Vice Chair, National Science Board				
11:20	Break				
11:40	Keynote XI: Dr. Wesley L. Harris, Charles Stark Draper Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology (MIT) and Vice President of National Academy of Engineering				
12:20	Keynote XII:				
1:00	Buffet Lunch				
2:00	Social Robotics Workshop Dr. Anshu Arora and Dr. Amit Arora, UDC	Simulation, Optimization and Productivity Improvement	Engineering Education and Curriculum Improvement	Lean Six Sigma and Operations Excellence	Supply Chain and Logistics
4:00	Awards Dinner Setup	Engineering Management and Project Management	Case Studies and Best Practices	Business Management and Operations Management	Digital Manufacturing, Industry 4.0 and IoT

Awards Ceremony and Dinner Buffet
6:00 – 9:00 pm, June 6, 2024 – UDC Student Center Ballroom

June 3, 2024 (Monday)

June 3, 2024 (Monday) – Session: 8:00 – 9:45 am

8:00 am – 10:45 am, MONDAY

Zoom Room 5

Session Chair: Dr. Mizanur Rahman, IEOM Society

Undergraduate Student Paper Competition sponsored by Siemens

ID 24 A Proposed Ergonomic Memory Foam Cervical Curve Pillow Made with Alternative Organic Wool Material Designed Specifically for Patients with Scoliosis

Bianca Andrea G. Eleria, Gabrille Francine DC. Gonzales, Virgilio S. Pangilinan Jr. and Wynona Zia J. Peregrino, Department of Industrial Engineering, University of Santo Tomas, Sampaloc, Manila 1008, Philippines
Carlos Ignacio P. Lugay Jr., PhD, PIE, ASEAN Engr., Professor of Industrial Engineering, University of Santo Tomas, Sampaloc, Manila 1008, Philippines

ID 190 A Scheduling Textile Industry-Based Problem Utilizing Priority Rules and Promodel in the Philippines

Zendry Louie Mabilangan, Aliyah Jann Portuguez, Daniel Johns Tagibao, Gabriel Jerome Sabangan, Jonnamae Valdeviezo, Lyka Villegas and Maricar M. Navarro Industrial Engineering Program, College of Engineering and Architecture, Technological Institute of the Philippine, Quezon City, Philippines

ID 180 Bucket Fill Line Pump System Efficiency Improvement

Ananya Devanur, Srikanth Dhamodharan and Bronson G. Hultmark, University of Illinois Urbana Champaign, United States

ID 257 Detection of Soiling Events in Solar Photovoltaic Systems Using In-situ Optical Sensing and Machine Learning

Nicholas Percarpio and Ahmed Aziz Ezzat, Rutgers, The State University of New Jersey, Piscataway, NJ, 08854, USA

ID 206 Enhancing Production Efficiency and Quality in the Carbonated Beverage Industry: A Lean Manufacturing Approach

Bianca Joyce Vargas-Romero, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Borys Gastón Urbizagastegui-Jaramillo, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

ID 184 Implementation of an Agile Receivables Management Model Using Kanban to Reduce Delinquency Rates in Digital Transformation Consultancies

Ximena Naomi Paredes-Chirinos, Bachelor in Industrial Engineering, Faculty of Engineering, University of Lima, Peru
Nicolás Mateo Caballero-Carpio, Bachelor in Industrial Engineering, Faculty of Engineering, University of Lima, Peru
Juan Carlos Quiroz-Flores, Research Professor, Faculty of Engineering, University of Lima, Peru

ID 25 Improving Operational Efficiency and Reducing Downtime: Applying Lean Six Sigma in Material Recovery Facilities

Valeria N. Droz Cruz and María M. García Sandoval, PhD, Polytechnic University of Puerto Rico, Industrial Engineering Department, United States

ID 188 Productivity Enhancement using ProModel Simulation: A Case Study in the Book Manufacturing Company

Fredinbert L. Aguilar, Andrea Joyce A. Baldiviso, Jean Blecilde V. Caguete, John Dexter L. Laylo, Yoshitaka B. Sakai, Aliyah Jann M. Portuguez and Maricar M. Navarro Industrial Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

ID 187 Simulation Optimization: A Case Study of Lean Six Sigma and U-Shaped Production Principle in a Footwear Manufacturing Company in the Philippines

Mari Dane M. Agra, Christine Anne L. De Guzman, Ali P. Deocareza, Robin Kenshin R. Sanchez, Aliyah Jann Portuguez and Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao Quezon City, Philippines

ID 189 Strategic Cost Management and Quality Optimization in Hat Manufacturing: A VA VE Analysis Approach

Mae Ann Bodiongan, Justin Candaza, Angelica Dalumpines, John Lester Peñaflorida, Aliyah Jann Portuguez, Mesica Sarabia and Maricar M. Navarro, Industrial Engineering Program College of Engineering and Architecture Technological Institute of the Philippines, Quezon City, Philippines

ID 186 VAVE Approach in Production Operation of a Shoe Manufacturing Company: A Case Study Utilizing Pro Model Simulation

Samantha May P. Aniceto, Charmi May C. Arozo, Mary Grace Bello, Aliyah Jann M. Portuguez and Maricar M. Navarro, Industrial Engineering Program, College of Engineering and Architecture, Technological Institute of the Philippine, Quezon City, Philippines

ID 277 Optimization of Machinery Repair Processes in the Mining and Construction Sectors through Lean Service Methodologies: An Integrated Case Study

Jorge Alberto Peña Garay, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

Undergraduate Research Competition sponsored by Daikin Applied

ID 228 Plant Facility Layout Improvement for Productivity Enhancement in Book Manufacturing Company using ProModel Simulation

Fredinbert L. Aguilar, Andrea Joyce A. Baldiviso, Jean Blecilde V. Caguete, John Dexter L. Laylo, Yoshitaka B. Sakai and Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City

ID 158 Theory of ultimate collision

Saransh Bachchan, Sanatan Dharam Vidya Mandir HUDA, India

ID 278 Optimizing Logistics and Inventory Management in SMEs: Integrating Economic Order Quantity and Systematic Layout Planning in a Peruvian Distribution Company

Jose Luis Adrianzen-Nuñez, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Gabriel Berrospi-Gálvez, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

ID 284 Enhancing Operational Efficiency in Hydrocarbon Supply Chains through Engineering Methods: A Case Study in Fuel Dispatch Optimization

Helen Alejandra Alvarado-Davila, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

ID 57 An Evaluation of E-Banking Services among Filipino Senior Citizen Population in the National Capital Region

James William Agliam and Andrei Omar Esguerra, Department of Industrial Engineering, Faculty of Engineering, University of Santo Tomas Sampaloc, Manila, Metro Manila, Philippines

June 3, 2024 (Monday) – Session: 10:00 – 11:45 am

11:00 am – 12:45 pm, MONDAY

Zoom Room 5

Session Chair: Briana Wellman, Ph.D., UDC

Zoom Host: Aqib Islam, IEOM Society

Doctoral Dissertation Competition sponsored by Airbus

ID 236 A Solar Energy Framework: Solar System Design for Thermal Applications with Implementation of Fpga

Hafiz Usama Hashmat, Department of Mechanical Engineering, Faculty of Engineering and Technology, The University of Lahore, Lahore, 54000, Pakistan

ID 260 Integration of sequence stratigraphic and structural analysis in identifying the petroleum system in the Odigba Field, Offshore Niger Delta Basin

Edo Osehon, Peoples friendship University of Russia, Russia

ID 237 Machine learning approach to predict the Laurenty index in wine bottling process

Luis Francisco Lillo Otárola, Hanns de la Fuente Mella and Jose Ceroni Diaz, Escuela de ingeniería Industrial, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile

Graduate Student Paper Competition sponsored by Eaton Corporation

ID 194 Application of Lean Manufacturing in the Energy Sectors

Prabhakar Uprety, Department of Automotive and Manufacturing Engineering Technology, Minnesota State University, Mankato, MN 56001, USA
Pawan Bhandari, Ph.D., Department of Automotive and Manufacturing Engineering Technology, Minnesota State University, Mankato, MN, USA

ID 87 Data-Driven Generative Design (dGD) of a Soft Robot Digital Twin by an Intuitional Evolutionary Algorithm (iEA)

Chenxi Tao, Roger J. Jiao and Seung-Kyum Choi, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, USA

ID 211 Economic Efficiency and Profitability of Organizing A Small Enterprise For The Recycling Of Plastic Packaging In Ibadan Province, Southwest Nigeria

Didi Chekwube Nnamdia, Kharlamova Marianna Db, Okeke Solomon Ekenec and Ayub Hassan Ulusowe, Friendship University of Russia Named after Patrice Lumumba (RUDN) University, Moscow, Russia
Oluwaseyi Samson Oladipupod, Pan African University, Life and Earth Sciences Institute (Including Health and Agriculture)- PAULESID

ID 75 Feasibility Restoration in Heuristic Scheduling Problems

Moddassir Khan Nayeem and Omar Abbaas, Department of Mechanical Engineering, University of Texas at San Antonio, San Antonio, TX, USA

ID 142 Predictive and prescriptive analytics models to support the internal audit capacity planning system of an IT company

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

June 3, 2024 (Monday) – Session: 12:00 – 2:00 pm

1:00 – 2:00 pm, MONDAY, June 3

Zoom Room 5

Session Chair: Aqib Islam, IEOM Society

Senior Design Project Competition sponsored by Tooling Tech Group

ID 176 Design and Development of an Adjustable Pattern for Roller Shell Casting

Abu Huraira Atta Ullah, Industrial and Manufacturing Engineering, University of Engineering and Technology, Lahore, Pakistan

ID 175 Executive Dashboard for Key Performance Indicator Assessment

Mia Chavez, University of Illinois, United States

ID 166 Innovating FORTIFIED Building Education through 3D Interactive Modeling

Andrew Whitehead, Louisiana State University, United States

ID 287 Optimization of Service Times in Fast-Food Restaurants in Lima: Application of Continuous Improvement Tools and Process Simulation

José Luis Sánchez-Flores, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
James Junior Sanchez-Leveau, Bachelors in industrial engineering, Faculty of Engineering, University of Lima, Peru
Martín Fidel Collao-Díaz, Research Professor, Faculty of Engineering, University of Lima, Peru

ID 99 Torque Tactician: A Senior Design Manufacturing Case

Kevin Ayala, Marquis Amador, Steven Casillas, Alexis Orozco, Ronald Martinez and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge 91330, California, USA

ID 306 Improving Surgical Outcomes: Developing a Machine Learning Spine MRI Triage Tool

Satyar Foroughi, Gerardo Torres and Edward Ventura, Undergraduate Student, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA
Dr. Mansooreh Mollaghasemi and Dr. Luis Rabelo, Supervisor, Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA
Tony Mango, Project Sponsor, Orlando Health, Florida, USA

Lean Six Sigma Competition sponsored by Tooling Tech Group

ID 291 Improving the Productivity of an MYPE in the Province of Palpa Applying 5S and SLP Methodology

Mercedes Fernández-Durán, Vanessa Quispe-Contreras and Carlos Urbina-Rivera, Faculty of Industrial Engineering, Lima University, Av. Javier Prado Este 4600, Santiago de Surco, Lima – Perú

June 4, 2024 (Tuesday)

June 4, 2024 (Tuesday) – Session: 8:00 – 9:45 am

8:00 – 9:45 am, TUESDAY, June 4

Onsite Room 1

Session Chair:

Plenary I

Speaker I – 8:00 – 8:20 am

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

Speaker II – 8:20 – 8:40 am

Raghu Gurumurthy
Director of Operations
Crossover Solutions USA Inc.
Livonia, Michigan, USA

Speaker III – 8:40 – 9:00 am

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

Speaker IV – 9:00 – 9:20 am

Dr. Hamid Seifoddini
Associate Professor
Department of Industrial and Manufacturing Engineering
University of Wisconsin-Milwaukee
United States

ID 276 Industry 4.0 Technologies Applications in Digital Construction

Benyamin Sadeghi, PhD candidate, University of Wisconsin-Milwaukee, United States
Hamid Seifoddini, Faculty member, University of Wisconsin-Milwaukee, United States

Speaker V – 9:20 – 9:40 am

8:00 – 9:45 am, TUESDAY, June 4

Onsite Room 2

Session Chair: Amir Shahirinia, Ph.D., UDC

Graduate Student Paper Competition sponsored by Eaton Corporation

ID 2 An Investigation of the Contemporary Rehabilitation Theory Based on Historical Spatial Organization for Bangladeshi Third-Gender Communities

Rabaya Nusrath Niva, Bangladesh University of Engineering and Technology (BUET), Bangladesh

ID 26 Human Resources Analytics: Determining Possible Turnovers with Feature Engineering Approach

Eren Darici, Kira K. Hamelink and Ilgin Acar, Department of Industrial and Entrepreneurial Engineering and Engineering Management, Western Michigan University, Kalamazoo, MI, USA

ID 170 Optimizing Equipment Maintenance: A Predictive Analytics Approach to Enhance Operational Efficiency
Ernesto Rodriguez, Graduate Student, Masters of Engineering Management and Leadership, Rice University, Houston, TX, USA

ID 263 Small Data and Sparse Bayesian Learning for Sequential Inference of Network Connectivity
Jinming Wan, Jun Kataoka, Hiroki Sayama and Changqing Cheng, Department of Systems Science and Industrial Engineering, Binghamton University, Binghamton, NY 13902, USA
Jayanth Sivakumar, Citibank, N.A. company, New York, NY 10013, USA
Eric Peña, Motional company, Boston, MA 02210, USA
Yiming Che, School of Computing and Augmented Intelligence, Arizona State University, Tempe, AZ 85281, USA

8:00 – 9:45 am, TUESDAY, June 4

Onsite Room 3

Session Chair: Dr. Ji Chen, Dr. Ji Chen Visiting Assistant Professor, Department of Mechanical Engineering

Undergraduate Research Competition sponsored by Daikin Applied

ID 69 Enhancing Supply Chain Efficiency through Predictive Inventory Optimization using Artificial Intelligence
Syed Md Naieem, Samina Rahman Shuchi and Abdullah Al-Muntakim, Department of Industrial and Production Engineering, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
Dr. Ferdous Sarwar, Professor, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

ID 39 Techno-economic analysis of Hydrogen production from waste plastics in the context of Japan
Bishwash Paneru, TU, Nepal

Undergraduate Student Paper Competition sponsored by Siemens

ID 215 Integrate In-process Steel Bar Straightness SPC Validation
Ashay Gandhi, Mike Hofmann, Shilong Zhu and Nitin Kumar, University of Illinois at Urbana-Champaign, United States

ID 137 Machining Variables Optimization for Sustainability Manufacturing
Noah Bretz, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Jeffrey Sumner, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA

ID 131 Power Consumption Optimization for Sustainable Subtractive Manufacturing Operation
Zachary Rennard, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA
Jeffrey Sumner, Department of Engineering and Physics, Southern Arkansas University, Arkansas, USA

ID 303 Occupational health and safety management system for an automotive paint sales company based on the international standard ISO 45001-2018
Jorge Pacheco Zevallos, Maribel Espinoza Noa and Nicol Flores Ruiz, Professional School of Industrial Engineering, Ricardo Palma University, Santiago de Surco, Lima, Perú

8:00 – 9:45 am, TUESDAY, June 4

Onsite Room 4

Session Chair: Jiajun Xu, Ph.D., P.E., UDC

Human Factors and Ergonomics Competition sponsored by CINTAS

ID 92 Parental Perspectives on the Impact of COVID-19 on Children's Education
Tarek Q. Qasim, Mohamed Said Obeidat and Dalia Yousef Saaydeh, Department of Industrial Engineering, Faculty of Engineering, Jordan University of Science and Technology, Irbid 22110, Jordan

ID 63 Assessment of Health Problems and Hazards Prevalent among Garment Workers in a Developing Country: An Approach using Risk Priority Number and Best-Worst Method
Farzana Islam, Department of Industrial and Management Systems Engineering, West Virginia University, Morgantown, WV 26506, United States

ID 16 Cost Estimation for Healthcare Service Delivery
Sang-Oh Shim, Professor of Business Administration, Hanbat National University, Daejeon, 34158, South Korea

ID 52 Exploring the Impact of Telemedicine and Referral on Carbon Emissions from Healthcare Organizations
Yao-Te Tsai, Associate Professor, Department of Information Management, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan
Chia-Hui Yu, Assistant Professor, Department of Business Administration, National Taipei University of Business, Taipei, Taiwan
Shao-Jen Weng, Dean, College of Interdisciplinary Innovation, Chair, Professor, Department of Industrial Engineering and Enterprise Information Tunghai University, Taichung, Taiwan

8:00 – 9:45 am, TUESDAY, June 4**Zoom Room 5**

Session Chair: Aqib Islam, IEOM Society

Artificial Intelligence and Data Science

ID 261 Can Industrial Engineering Profession be Automated by AI?

Shrushti Mardikar and Abdullah Aldhuhayyan, Department of Industrial and Manufacturing Engineering, Pennsylvania State University University Park, PA, USA

Dr. Vittal Prabhu, Professor, Department of Industrial and Manufacturing Engineering, Pennsylvania State University, University Park, PA, USA

ID 217 Design Machine Learning Model for Network Traffic Classification

Meenakshi Dakuru, Department of System Science and Industrial Engineering, State University of New York at Binghamton, Binghamton, NY 13902, United States

ID 156 Driving Efficiency: The Role of Artificial Intelligence (AI) in Enhancing Municipal Operations in Saudi Arabia

Bandar S. Aljabri, Department of Industrial Engineering, College of Engineering, King Saud University, PO Box 800, Riyadh 11421, Saudi Arabia

ID 238 Leveraging AI for Enhanced Equipment Data Collection and Assimilation in Asset Monitoring

Raghunandan Gurumurthy, Crossover Solutions USA Inc., United States

ID 207 Real-Time Classification PCA-Based Neural Network for Improving Vulnerable Road User Safety

Carlos Antonio Marino, Ph.D., CENTRUM Católica Graduate Business School, Lima, Peru

Pontificia Universidad Católica del Perú, Lima, Peru

ID 285 Industry 5.0 Perspectives on the Trustworthiness of Novel Multimodal Language Models

Alfonso E. de la Fuente Ruiz, European Science Foundation, C. Valenciana, Spain

Galia Novakova Nedeltcheva, Politecnico di Milano, DEIB, Milan, Italy

ID 240 Evaluation of Artificial Intelligence Requirements in Aviation Industry using Fuzzy Cognitive Map Approach

Celal Alpay Havle, Doctor of Industrial Engineering, Graduate School of Science and Engineering, Galatasaray University, Istanbul, Turkey

Graduate Student in MBA program at University Canada West, Vancouver, BC V6B 1V9, Canada

Gülçin Büyükközkcan, Professor Doctor, Professor Doctor, Industrial Engineering Department, Galatasaray University, 34349, Istanbul, Turkey

June 4, 2024 (Tuesday) – Session: 10:00 am – 1:00 pm – Onsite Room 1

Keynote Speakers

10:00 am Conference Chair Remarks

Devdas Shetty Ph.D., PE

Dean and Professor

School of Engineering and Applied Sciences

University of the District of Columbia

Washington, DC, USA

10:10 am Remarks from IEOM Society International

Professor Donald M. Reimer

Chief Operating Officer

IEOM Society International

Southfield, Michigan, USA

Opening Keynote I: Tuesday, June 4, 2024, 10:20 – 11:00 am

Eric L. Moore, Ph.D.

Deputy to the Commanding General

U.S. Army Combat Capabilities Development Command

Keynote II: Tuesday, June 4, 2024, 11:00 – 11:40 am

Javad Mokhbery

CEO
FUTEK Advanced Sensor Technology, Inc.
Irvine, California, United States

Keynote III: Tuesday, June 4, 2024, 11:40 – 12:20

Dr. Vivek Dwivedi
Associate Division Chief for the Mechanical Systems Division (MSD)
NASA Goddard Space Flight Center (GSFC)

Keynote IV: Tuesday, June 4, 2024, 12:20 – 1:00

Mr. Matthew J. Stepura
Systems Engineering and Test Department Head
Naval Air Systems Command

1:00 pm – Lunch Welcome Address

Maurice D. Edington, Ph.D.
President
University of the District of Columbia

1:00 pm – Buffet Lunch

2:00- 5:00 pm – Poster Competition

ID 85 Ensemble Learning and Generative Adversarial Networks in chronic kidney disease: Optimizing Dialysis Prediction through Advanced Sampling and Model Tuning

Hamed Khosravi, Srinjoy Das, Abdullah Al-Mamun and Imtiaz Ahmed, Department of Industrial and Management Systems Engineering
West Virginia University, Morgantown, WV 26505, USA

ID 62 Resilience-Driven Scheduling in Critical Infrastructure Network – A Multi Agent Reinforcement Learning Approach

Pavithra Sripathanallur Murali and Shima Mohebbi, Department of Systems Engineering and Operations Research, George Mason University, 4400
University Drive, Fairfax, Virginia, 22030, USA

ID 67 An Interactive Approach to Backward Compatible Modular System Configuration

Hari Elangeswaran, John Jung-Woon Yoo and Gangjian Guo, Department of Industrial & Manufacturing Engineering & Technology, Bradley
University, Peoria, IL, USA

June 4, 2024 (Tuesday) – Session: 2:00 – 3:45 pm

2:00 – 3:45 pm, TUESDAY, June 4

Onsite Room 1

Intelligent Maintenance and Reliability Panel

Panel Chair

Aaron Rubel, M.S.E.M.
University Research & Technology Partnerships Manager – Airbus Americas
Past Head of Aircraft Maintenance Programs Development
Airbus Americas, Inc.
Mobile, Alabama Engineering Center
Mobile, AL 36615, USA

Panel Speaker I

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

Panel Speaker II

Dr. Ahad Ali
 Associate Professor
 Director, Bachelor of Science in Industrial Engineering (BSIE)
 Director, Master of Science in Industrial Engineering (MSIE)
 Director, Graduate Certificate in Lean Six Sigma
 Director, Smart Manufacturing and Lean Systems Research Group
 Coordinator, Siemens Electro-Matic Industrial Engineering Lab
 A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
 Lawrence Technological University
 Southfield, Michigan, MI 48075, USA

Panel Speaker III

2:00 – 3:45 pm, TUESDAY, June 4

Onsite Room 2

Session Chair: Alexander Pebbles, Ph.D., UDC

Senior Design Project Competition sponsored by Tooling Tech Group

ID 135 Increase Reliability: Improve OTC Boilers Cycle

Shaiel Enid Suárez de Jesús BSIE, LSSGB and Jannette Perez Barbosa, MSIE, PE, Department of Industrial and Management Engineering
 Universidad Ana G. Méndez-Gurabo Campus, Gurabo, Puerto Rico

Simulation Competition

ID 38 Hydrogen production from waste plastics

Bishwash Paneru, TU, Nepal

ID 134 Methodologies to Model Urban Transportation Networks

Ahmed Alkarboly, Forerunner Advanced Systems & Solutions, Richardson, Texas, United States

Graduate Student Paper Competition sponsored by Eaton Corporation

ID 221 A Systematic Review of the Internet of Things Contribution to Obtain Supply Chain Integration

Faraz Madanchi, Hamid Reza Maghroor and Thomas O'Neal, Department of Industrial Engineering and Management Systems (IEMS), University of Central Florida, Orlando, Florida, USA

ID 49 The Role of Generative AI in Supply Chain Resilience: A Fuzzy AHP Approach

Hamid Reza Maghroor, Faraz Madanchi and Thomas O'Neal, Department of Industrial Engineering and Management Systems (IEMS), University of Central Florida, Orlando, Florida, USA

2:00 – 3:45 pm, TUESDAY

Onsite Room 3

Session Chair: Dr. Amit Arora, Associate Professor of Supply Chain Management, University of the District of Columbia (UDC)

Supply Chain and Logistics Competition

ID 51 Deploying Internet of Things in Green Supply Chain with Applications in Dental Equipment Industry

Alireza Namdari, Connecticut State University, New Britain, CT, USA
 Pardis Roozkhosh and Vahideh Bafandegan Emroozzi, Operations Research, Department of Management, School of Economics and Administrative Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

ID 173 Desert into field: Environmental Corporate Social Responsibility in Fostering Sustainable Technological Innovation in the agriculture sector in UAE

Nilakshi Galahitiyawee, Heriot Watt University, United Kingdom

ID 192 Driving Green Innovation: Lifecycle Assessment and Product Design in the Automotive Supply Chain Using Fuzzy BWM

Syed Aqib Jalil, Faculty of Business, Sohar University, Sohar, Oman
 Ameen Siddiqui, Wm Michael Barnes '64, Department of Industrial and Systems Engineering, Texas A&M University, College Station, TX, USA

2:00 – 3:45 pm, TUESDAY, June 4

Onsite Room 4

Session Chair: Farah Altarazi, UDC

Global Industry Solutions and Industry 4.0

2:00 – 2:20 pm (Tuesday, June 4)

Foad H Khanli

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

2:20 – 2:40 pm (Tuesday, June 4)

Farah Altarazi
Department of Systems Science and Industrial Engineering
Binghamton University, The State University of New York
New York, United States

2:40 – 3:00 pm (Tuesday, June 4)

3:00 – 3:20 pm (Tuesday, June 4)

2:00 – 3:45 pm, TUESDAY, June 4

Zoom Room 5

Session Chair: Prof. Vitor Caldana, IFSP, Sorocaba, Brazil

Simulation, Optimization and Industry 4.0

ID 106 Computational Model for Re-Routing and Assigning ESBs

Rajesh Saha and Mojahid Saeed Osman, The Center for Computational Modeling, Simulation and Analytics, Department of Industrial and Manufacturing Engineering, North Dakota State University, ND, USA

ID 239 Improving the Productivity of an MYPE in the Province of Palpa Applying 5S and SLP Methodology

Mercedes Fernández-Durán, Vanessa Quispe-Contreras and Carlos Urbina-Rivera, Faculty of Industrial Engineering, Lima University Av. Javier Prado Este 4600, Santiago de Surco, Lima – Peru

ID 220 Visualization of Real-time Solutions of Routing Problems on Dynamic Networks

Mojahid Saeed Osman, Rajesh Saha, The Center for Computational Modeling, Simulation, and Analytics, Department of Industrial and Manufacturing Engineering, North Dakota State University, ND, USA

ID 45 An overview on 3D modeling techniques of human bodies

Sarah Ali, Clinical assistant professor, Loyola University Chicago, Chicago, IL, USA

ID 224 Digital Service Quality Analysis in Aviation Industry with Aviation 4.0 Perspective using Fuzzy Analytic Hierarchy Process Methodology

Gülçin Büyükközkcan and Orhan Feyzioğlu, Professor Doctor, Professor Doctor, Industrial Engineering Department, Galatasaray University 34349, Istanbul, Turkey,
Celal Alpay Havle, Doctor of Industrial Engineering, Received from Graduate School of Science and Engineering, Galatasaray University 34349, Istanbul, Turkey
Graduate Student in MBA program at University Canada West, Vancouver, BC V6B 1V9, Canada

June 4, 2024 (Tuesday) – Session: 4:00 – 5:45 pm

4:00 – 5:45 pm, TUESDAY, June 4

Onsite Room 1

Innovation and Entrepreneurship Workshop

Speaker: Professor Don Reimer, Adjunct Professor, LTU

4:00 – 5:45 pm, TUESDAY, June 4

Onsite Room 2

Session Chair: Daryl Santos, The State University of New York at Binghamton, New York, USA

Artificial Intelligence and Data Science

ID 124 Implementation of Artificial Intelligence in Wind Energy

Abdulah Alawaji, Abdulrahman Alsulaiman and Motaib Alsheheitan, Industrial Engineering Department, College of Engineering, Prince Sattam Bin Abdulaziz University, Kharj, KSA
Ali AlArjani, Industrial Engineering Department, College of Engineering, Prince Sattam Bin Abdulaziz University, AlKharj, KSA

ID 76 Optimizing Material Properties in Reduced Feature Spaces: Integration of Random Forest with Bayesian Optimization

Ahmed Shoyeb Raihan, Hamed Khosravi and Imtiaz Ahmed, Department of Industrial and Management Systems Engineering, West Virginia University, Morgantown, WV 26505, USA

ID 22 Towards Adopting Digital Twins for Enhancing Circular Economy in the UK Construction Industry: Benefits and Enablers

Thomas Olakitan Okimi, Associate lecturer, Department of Construction Science and Management, School of Architecture and Built Environment, University of Lincoln, United Kingdom
Saad Sarhan, Program Director/ Assistant Professor, Advance Engineering management, University of Birmingham Dubai, United Arab Emirates

Imoleayo Abraham Awodele, Construction Management and Quantity Surveying Dept., Durban University of Technology, Durban, South Africa
 Temitope Olufolahan Olaniran, Lecturer, Department of Architecture, Durban University of Technology, Durban, 4001, South Africa
 Olusoji Dapo Adetola, Department of Civil Engineering, Federal University Oye-Ekiti, Ekiti State, Nigeria
 Oyindamola Aminat Olagunju, Salford Business school, University of Salford Manchester, United Kingdom

ID 233 An Investigation into the Methodology and Applications of Mahalanobis Taguchi System

Jharieswar Maiti, Professor, Department of Industrial and Systems Engineering, IIT Kharagpur, Kharagpur, India
 Chairman, CoE in Safety Engineering and Analytics, IIT Kharagpur, Kharagpur, India
 Vivek V Khanzode, Professor, Operations and Supply Chain Management, Indian Institute of Management, Mumbai, India

ID 53 Profit Prediction Using Machine Learning and Regression Models: A Comparative Study

Farah Altarazi and Daryl Santos, Watson Institute for Systems Excellence (WISE), Systems Science and Industrial Engineering Department
 The State University of New York at Binghamton, New York, USA

ID 222 Sales Order to Manufacturing Configuration Analysis for Artificial Intelligence Implementation

Jack Dayan, Billy Fisher, Aleksina Jovic and Piush Pradeep, Industrial & Enterprise Systems Engineering, United States

4:00 – 7:00 pm, TUESDAY

Onsite Room 3

Session Chair: Aaron Rubel, University Research & Technology Partnerships Manager – Airbus Americas

Doctoral Dissertation Competition sponsored by Airbus

ID 13 Identification and analysis of barriers to the implementation of solar energy in Ethiopia using interpretive structural modeling technique

Tefera Mekonnen, Renewable Energy System department, Institute for Technology and Resources Management in the Tropics and Subtropics (ITT), TH Köln (University of Applied Science), Betzdorfer Strasse 2, 50679 Cologne, Germany
 Jimma University, Institute of Technology, Jimma, Ethiopia
 Ramchandra Bhandari, Renewable Energy System department, Institute for Technology and Resources Management in the Tropics and Subtropics (ITT), TH Köln (University of Applied Science), Betzdorfer Strasse 2, 50679 Cologne, Germany
 Venkata Ramayya, Jimma University, Institute of Technology, Jimma, Ethiopia

ID 254 Empirical Investigation of Lean Management and Lean Six Sigma Success in Local Government Organizations

Mohammed Alrezq, Virginia Tech, United States

ID 241 A Systematic Literature Review of Performance Management of University Holding Company

Pennapat Jirachai and Natcha Thawesaengskulthai, Department of Industrial Engineering, Faculty of Engineering, Chulalongkorn University Bangkok, Thailand

Masters Thesis Competition

ID 60 The Effect of Data Quality on Decision-Making A Quasi-Experimental Study

Afnan Alabduljabbar and Abdulaziz Alshammari, College of Computer and Information Sciences, Department of Information Systems, Imam Mohammad bin Saud Islamic University, Riyadh, Saudi Arabia

ID 265 Strategic Forecasting for Electric Vehicle Sales and Battery Returns: Integrating Statistical Methods and Monte Carlo Simulation

Leila Talebi and Lin Guo, Department of Industrial Engineering, South Dakota School of Mines and Technology, Rapid City, SD, USA

ID 132 Study of Reliability Centered Maintenance and Failure Mode Effect Analysis (Fmea) In Textile Manufacturing Industries (Case at Spinning Section of Bahir Dar Textile Share Company)

Befekadu Zeleke, Expert, Amhara National Regional State Bureau of Industry and Investment, Msc. Industrial Management, Bahir Dar, Ethiopia

ID 159 Study of Reliability Centered Maintenance and Failure Mode Effect Analyses (FMEA) In Textile Manufacturing Industries (Case at Spinning Section of Bahir Dar Textile Share Company)

Befekadu Zeleke, Expert, Amhara National Regional State Bureau of Industry and Investment, Msc. Industrial Management, Bahir Dar, Ethiopia

4:00 – 5:45pm, TUESDAY, June 4

Onsite Room 4

Session Chair: Ludwig C. Nitsche, Ph.D.

ID 81 Advancements and Future Directions in the Application of Digital Twins in Machining Processes

Sepideh Abolghasem, Alexander Garcia, Matthew Youssef and Shiva Kumar c, Department of Manufacturing Systems Engineering and Management, California State University, Northridge, California, USA

ID 11 Applying the American Homeland Security Program Concepts in Conflict Countries

Ashraf Elalam, Doctor of Business Administration, University of Potomac – Washington DC

ID 253 Optimizing Financial Data Analytics in Manufacturing Operations: A Decision Support Framework for Cost Reduction and Performance Improvement

Hellen Yaa Agbevey, Master's Student in Finance, Haworth College of Business, Western Michigan University, Michigan, USA

4:00 – 5:45pm, TUESDAY, June 4

Zoom Room 5

Session Chair: Dr. Mizanur Rahman, IEOM Society

Sustainability, Green Systems and Energy

ID 191 A Techno-Economic Optimization Model Proposal for BESS Sizing and Operation Scheduling of a Wind Farm Participating in Turkish Electricity Market

Ümmügülüşüm Erdağı and M. Ebru Angün, Department of Industrial Engineering, Galatasaray University, İstanbul, Turkey
Kemal Sarıca, Department of Industrial Engineering, Gebze Technical University, Kocaeli, Turkey

ID 223 Extension of COPRAS with Spherical Fuzzy Sets and Its Application to Hazardous Waste Management

Gülçin Büyüközkan, Industrial Engineering Department, Galatasaray University, 34349, Ortakoy, İstanbul, Türkiye
Fethullah Göçer, Industrial Engineering Department, Kahramanmaraş Sutcu Imam University, 46040, Kahramanmaraş, Türkiye

ID 229 Integration of Geographic Information System (Gis), Gully Erosion, And Water Quality Data in Promoting Sustainable Practices; A Case Study of Ebenato, Nnewi South, Anambra State, Nigeria

Okeke Solomon Ekene, Graduate Student, Peoples' Friendship University of Russia, Moscow, Russia
Didi Chekwube Nnamdi, Graduate Student, Pan African University
Nwobi Nelson Onyebuchi, Graduate Student, Peoples' Friendship University of Russia, Moscow, Russia
Osuaquwu Franklin Chukwudi, Student, Nnamdi Azikiwe University, Awka, Nigeria

ID 258 Realizing the Green Dividend: Leveraging Sustainable Practices for Global Environmental and Economic Gains

Grace Babalola, Binghamton University (SUNY), United States

ID 264 The Overview of Heating Systems in The Housing Sector and Their Roles in Greenhouse Gas Emission in The Russian Federation

Okeke Solomon Ekene, Hitev Yuri Pavlovich and Didi Chekwube Nnamdi, People's Friendship University of Russia, Moscow, Russia
Oladipupo Oluwaseyi Samson, Pan African University, Ibadan, Nigeria
Osuaquwu Franklin Chukwudi, Nnamdi Azikiwe University, Awka, Nigeria

ID 94 Fundamentals of Smart In-process Inspection in Advanced Manufacturing Systems

Shu Wang, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA, USA
Lvhai (Samuel) Hu, Director of TE Connectivity, Shanghai, China
Roger J. Jiao, Associate Professor of School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA 30332, USA
Roger J. Jiao, Associate Professor of School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA 30332, USA

June 5, 2024 (Wednesday)

June 5, 2024 (Wednesday) – Session: 8:00 – 9:30 am

8:00 – 9:40 am, WEDNESDAY, June 5

Onsite Room 1

Session Chair: Dr. Muhammad Saad Memon

Plenary II Global Supply Chain and Logistics

8:00 – 8:20 am (Wednesday, June 5)

Jeremy Codioli
Vice President, Process Improvement
AVI-SPL
ASCM Supply Chain Leader of the Year
Richmond, Virginia, United States

8:20 – 8:40 am (Wednesday, June 5)

Dr. Muhammad Saad Memon
Associate Professor
Industrial Engineering and Management Dept.
Mehran University of Engineering & Tech
Jamshoro, Sindh, 76062, Pakistan.
Principal Investigator, Supply Chain and Operations Management Research Group

8:40 – 9:00 am (Wednesday, June 5)

9:00 – 9:20 am (Wednesday, June 5)

9:20 – 9:40 am (Wednesday, June 5)

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

8:00 – 9:40 am, WEDNESDAY, June 5

Onsite Room 2

Session Chair: Esther Ososanya, Ph.D., Dr. Esther Ososanya Department Chair and Professor of Electrical Engineering, UDC

Sustainability, Green Systems and Energy

ID 235 Analysis of a Model Structure that uses the Venturi Effect for Wind Speed Amplification

Zoheir Hamid, Department of Computer Science and Engineering, Mississippi State University, Starkville, Mississippi 39762, USA
Dr. Anjum Ali, Former Professor of EE, FAST-NU, Lahore, Pakistan, Former Professor, ECE, KICS, UET, Lahore, Pakistan
Former Associate Professor of EE, Mercer University, MACON, GA, USA, Former Associate Professor of CSE, LUMS, Lahore, Pakistan

ID 225 Experimental Study of a Crashworthy Thin -Walled Structure with Novel Multiple Cells

Dr. Chirra Kesava Reddy, Professor, Mechanical engineering Department, Universal college of Engineering and Technology, Dokiparru (V), Medikonduru (M) Guntur (Dist.), Andhra Pradesh, India
Dr. R. Sudarshan, Associate professor, Mechanical engineering department, Geethanjali college of engineering and technology, Cheeryal (V), Keesara (M) Medchel (Dist.), Hyderabad, India
Dr. Mohd Hasham Ali, Assistant professor, Mechanical Engineering Department, MuffaKham Jah College of Engineering and Technology

ID 139 Green Building Design Surrogate Optimization: Exploring Off the Shelf Machine Learning and Mixed Integer Programming Integrations

Raziye Aghapour, School of Industrial, Manufacturing, and Systems Engineering, University of Texas at Arlington, Texas, Arlington, USA
Erick C. Jones Jr., Assistant Professor, School of Industrial, Manufacturing, and Systems Engineering, University of Texas at Arlington, Texas, Arlington, USA
Sarasadat Alavi, School of Industrial, Manufacturing, and Systems Engineering, University of Texas at Arlington, Texas, Arlington, USA

ID 160 Optimizing Timber Supply Chains: A Game Theory Approach to Timber Production and Environmental Objectives

Fatemeh Rezaei and Bruno Kanieski Da Silva, Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA, USA
Andrew R. Tilman, USDA Forest Service, Northern Research Station, St. Paul, MN, 55108-1034, USA
Jesse D. Henderson, USDA Forest Service, Southern Research Station, Research Triangle Park, NC, 27709, USA

ID 23 Strategies for State Owned Power Producers to Enhance Energy Access in Southern Africa

Henry Ncube, University of Johannesburg, Department of Quality and Operations Management, South Africa
Welcome Sandawana, Epworth Minerals

ID 107 Techno-economic and environmental assessments of distributed Waste-to-Hydrogen Refuelling Station in Gauteng Province of South Africa

Moshood Alao and Olawale Popoola, Department of Electrical Engineering & Centre for Energy and Electric Power, Tshwane University of Technology, Pretoria, South Africa

ID 168 A Study of Wind Patterns as a Function of Ventilator Geometry

Abu Huraira Atta Ullah, Industrial and Manufacturing Engineering, University of Engineering and Technology, Lahore, Pakistan
Zoheir Hamid, Department of Computer Science and Engineering, Mississippi State University, Starkville, Mississippi 39762, USA
Muhammad Ashhub Ali, Software Engineering Department, National University of Science and Technology, Islamabad, Pakistan
Dr. Anjum Ali, Former Professor of EE, FAST-NU, Lahore, Pakistan, Former Professor, ECE, KICS, UET, Lahore, Pakistan
Former Associate Professor of EE, Mercer University, MACON, GA, USA, Former Associate Professor of CSE, LUMS, Lahore, Pakistan

8:00 – 9:45 am, WEDNESDAY, June 5

Onsite Room 3

Session Chair: Lara Thompson, Ph.D., UDC

Entrepreneurship, Innovation and Ergonomics

ID 77 A New Look at Money Demand in the United States

Ning Jia, Lillian Kamal and Bharat Kolluri, Department of Finance, Analytics, Risk Management and Economics, University of Hartford
West Hartford, CT 06117, United States

ID 21 An empirical study on the green agro-based industries and sustainable development in Bangladesh

Shohel Ahamed and Abu Taher, Department of Industrial and Production Engineering, European University of Bangladesh, Mirpur, Dhaka-1216, Bangladesh

ID 208 Factors Influencing the Success of Ethiopian Technology Startups: The ISM approach

Abebe Shimelis, Addis Abeba University, Ethiopia

ID 143 A Comprehensive Analysis of Factors Influencing Biogas Plant Location

Shuaib Kaka, PhD candidate, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan
Lecturer, Industrial Engineering and Management, Dawood University of Engineering and Technology, Karachi, Sindh, Pakistan

Dr. Muhammad Saad Memon and Dr. Sonia Irshad Mari, Associate Professor, Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

ID 82 An Ergonomic Evaluation of Working Posture among Palletizing Workers Based on the Digital Human Modeling Using CATIA
Mohammed Said Obeidat, Department of Industrial Engineering, Jordan University of Science and Technology, Irbid 22110, Jordan
Diana Bashar Abbasi, Department of Industrial and Systems Engineering, Auburn University, Auburn, Alabama, USA

8:00 – 9:45 am, WEDNESDAY, June 5

Onsite Room 4

Session Chair: Pawan Tyagi, Ph.D., UDC

Business Management and Operations Management

ID 232 Conceptual Model of Knowledge Management Implementation in the Heavy Equipment Industry to Enhance Innovation and Productivity
Ahmad Anwari, Head of Corporate University at United Tractors, PhD Student of Industrial Engineering, University of Indonesia, Depok, Indonesia
Amalia Suzianti, Director of Human Resources at University of Indonesia, Professor of Industrial Engineering, University of Indonesia, Depok, Indonesia

ID 104 Enhancing Organizational Evaluation with the Optimum Service Excellence Model
Devdas Shetty, Dean, School of Engineering and Applied Sciences, Professor of Mechanical Engineering, University of the District of Columbia Washington, DC, USA
Michael Osei, MBA (TQM), Michelle Rincones-Rodríguez B.S., Michael Harnar, Ph.D. and Liliana Rodríguez-Campos, Ph.D.

ID 133 Fourth Industrial Revolution: Bangladesh's Readiness for Competitive Adaptation
Khan Mohammad Elyas, Senior Management Consultant, Plutus Consulting, and Development Researcher, Bangladesh

ID 183 Servitization as a Strategic Complement to Production and/or Servuction Systems: A Systematic Review
Hernando Garzón Saenz, CIPTEC Research Group – Faculty of Engineering – Industrial Engineering Program – Technology in Industrial Production Fundacion Universitaria Tecnológico Comfenalco, Cartagena de Indias, Colombia
Andrés Redchuk, ETSII. Department of Computer Sciences. University Rey Juan Carlos. Madrid. Spain
Director of Operational Excellence and Process Improvement Institute. 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 Tecnológico Comfenalco, Cartagena de Indias – Colombia

ID 126 Using Ubuntu Leadership practices to improve 13rganizational performance
Sugandren Naidoo, Professor, Department of Operations Management, University of South Africa, South Africa

ID 88 Exploring the Influence of Bank Capital on Liquidity Creation and Income Diversification During Severe Recession Using Multi-Regression: Case Study Iranian Banks
Milad Jasemi, Stephens College of Business, Assistant Professor of Data Analytics, University of Montevallo, Montevallo, AL, USA
Milad Shoaieinaeni, Department of Management and Accounting, Islamic Azad University, Islamshahr Branch, Tehran, Iran
Maryam Shoaieinaeni, Department of Computer Science, University of Kentucky, Lexington, KY, USA

8:00 – 9:45 am, WEDNESDAY, June 5

Zoom Room 5

Session Chair: Aqib Islam, IEOM Society

Business Management and Operations Management

ID 185 ABC-FSN Analysis for Inventory Management Policy: A Case Study in Retail Industry
Indesta Aulia Hendra Putri and Djoko Sihono Gabriel, Industrial Engineering Department, Indonesia University, Depok, Indonesia

ID 262 Implementation of ISO 14298:2013 in a Valuable Document Printing Company in Lima, Peru
Lila Margarita Bada-Carbajal, Senior Lecturer of Management, Instituto Tecnológico Superior de Álamo Temapache, Tecnológico Nacional de México, Veracruz, Mexico
Martha Aracely Gutiérrez Peralta, Escuela Superior de Comercio y Administración, Unidad Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico
Luis Rocha-Lona, Senior Lecturer of Operations Management, Escuela Superior de Comercio y Administración, Unidad Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, U. K
José Antonio Chavez-Espejel, Escuela Superior de Comercio y Administración, Unidad Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico

ID 259 Improvement Model to Increase the Service Level of a SME Coffee Producing Company with the Application of Centroid Method, ABC Analysis and Kanban
Fiorella Pinedo-Albán, Gabriela Santillana-Santillana and Alberto Flores-Perez, Facultad de Ingeniería, Universidad de Lima, Lima, Perú

ID 138 Optimal Inventory Management Policies When Supply Is Bundled
Mohammad E. Arbabian, Assistant Professor, Pamplin School of Business, Professor of Operations and Technology Management, University of Portland, Portland, OR, USA

ID 234 Efficiency Analysis of Municipal Solid Wastes (Msw) And Their Environmental Influences on Groundwater Resources in Onitsha, Anambra State, South-Eastern Nigeria

Okeke Solomon Ekene, Kharlamova Marianna Dmitrievna, Didi Chekwube Nnamdi and Nwobi Nelson Onyebuchi, People's Friendship University of Russia, Moscow, Russia
Oladipupo Oluwaseyi Samson, Pan African University, Ibadan, Nigeria

ID 256 MBSE Benefits & Systematic Approach for Managing Complex System Models
Prosenjit Dutta Banik, Oakland University, United States

ID 141 Energy-Aware Optimization of Distributed Flexible Job Shop Scheduling Problems with Deterministic Setup and Processing Times
Rahul Joshi, Saurabh Sanjay Singh and Deepak Gupta, Department of Industrial, Systems, and Manufacturing Engineering, College of Engineering Wichita State University, Wichita, KS, USA

June 5, 2024 (Wednesday) – Session: 10:00 am – 1:00 pm

Keynote Speakers

Keynote V: Wednesday, June 5, 2024, 10:00 – 10:40 am

Jonathan Conrad
Principle AI Researcher – Amazon
Reston, Virginia
United States

Keynote VI: Wednesday, June 5, 2024, 10:40 – 11:20 am

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

11:20 – 11:40 am Networking Break

Keynote VII: Wednesday, June 5, 2024, 11:40 am – 12:20 pm

Rachel R. Hughes
Department Head
MITRE

Keynote VIII: Wednesday, June 5, 2024, 12:20 pm – 1:00 pm

Khershed P. Cooper, Ph.D., FASM, FSME
Program Director, Advanced Manufacturing Program
Division of Civil, Mechanical and Manufacturing Innovation (CMMI)
Directorate for Engineering (ENG)
National Science Foundation (NSF)
Alexandria, VA 22314, USA

1:00 Buffet Lunch

June 5, 2024 (Wednesday) – Session: 2:00 – 3:45 pm

2:00 – 3:45, WEDNESDAY, June 5

Onsite Room 1

AI and Machine Learning Workshop
Mohammad Islam
Associate Director

Optum – United Healthcare Inc.
New Jersey, United States of America

2:00 – 3:45, WEDNESDAY, June 5

Onsite Room 2

Session Chair: Jiajun Xu, Ph.D., P.E.

Automation, Robotics and Autonomous Systems

ID 43 Applying Deep Learning for Controlling Robotic Arm Gestures

Farhan Mahbub and Md Sadatuzzaman Saagoto, Department of Mechatronics Engineering, World University of Bangladesh, Uttara-17, Dhaka, Bangladesh

ID 71 Lightweight Robotic Arm for Flexible Manufacturing

Nicholas Lambrache, Professor of Mechanical Engineering, PNG University of Technology, Morobe, PNG
David Guofu Chen, Department of Electrical Engineering, PNG University of Technology Morobe, PNG
Joseph Fisher, Department of Electrical Engineering, PNG University of Technology Morobe, PNG
Lidia Olaru, Jesta Group, Montreal, Quebec, Canada
Brian N'Drelan, Department of Mechanical Engineering, PNG University of Technology Morobe, PNG

ID 73 Sensor Control of Portable Robotic Arms

Nicholas Lambrache, Professor of Mechanical Engineering, PNG University of Technology, Morobe, PNG
David Guofu Chen, Department of Electrical Engineering, PNG University of Technology Morobe, PNG
Joseph Fisher, Department of Electrical Engineering, PNG University of Technology Morobe, PNG
Lidia Olaru, Jesta Group, Montreal, Quebec, Canada
Brian N'Drelan, Department of Mechanical Engineering, PNG University of Technology Morobe, PNG

ID 96 AUTOBVM: Automated Bag-Valve-Mask A Senior Design Manufacturing Case

Kevin Hernandez, Alexander Garcia, Tatsuro Kajioaka, Daniel Cuara, Jeffrey Liu, and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge 91330, California, USA

ID 54 Robotic Process Automation (RPA) Implementation Challenges: A Literature Review

Farah Altarazi and Daryl Santos, Watson Institute for Systems Excellence (WISE), Systems Science and Industrial Engineering Department The State University of New York at Binghamton, New York, USA
Edward Wong, Foxconn, Houston, Texas, USA

ID 288 Six Sigma in Revolutionising and Improving Revenue Collection; Case of Hare Polytechnic in Zimbabwe

Wilson Takavadii Nyamanhindi, Head of School of Office Management, Harare Polytechnic, Zimbabwe
Dorcas Mutizhe, Accounting Assistant, Harare Polytechnic, Zimbabwe

2:00 – 3:45, WEDNESDAY, June 5

Onsite Room 3

Session Chair: Prof. Don Reimer

Global Engineering Education

2:00 – 2:20 pm (Wednesday, June 5)

Anjum Ali, Ph.D.
Former Professor of EE, FAST-NU, Lahore, Pakistan
Former Professor, ECE, KICS, UET, Lahore, Pakistan
Former Associate Professor of EE, Mercer University, MACON, GA, USA
Former Associate Professor of CSE, LUMS, Lahore, Pakistan

2:20 – 2:40 pm (Wednesday, June 5)

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

2:40 – 3:00 pm (Wednesday, June 5)

Dr. Ariela Sofer
Professor

Divisional Dean
 Volgenau School of Engineering
 College of Engineering and Computing
 George Mason University
 4400 University Drive
 Fairfax, VA 22030

3:00 – 3:20 pm (Wednesday, June 5)

Esther Ososanya, Ph.D.
 Department Chair and Professor of Electrical Engineering
 School of Engineering and Applied Sciences
 University of the District of Columbia
 Washington, DC, USA

2:00 – 3:45, WEDNESDAY, June 5

Onsite Room 4

Workshop on Smart and Micro Grid

Dr. Tariq Masood, M.Phil., PhD, P.E(UK)
 Fellowship, Sr. MIEEE, Sr. MAIChE, MIET, MCET, MASCET
 Assistant Professor
 Department of Engineering
 Frostburg State University
 Frostburg, Maryland

2:00 – 3:45, WEDNESDAY, June 5

Zoom Room 5

Session Chairs: Prof. Vitor Caldana, IFSP, Sorocaba, Brazil

Manufacturing, Assembly and Design

ID 98 Cargo Craft Senior Design Manufacturing Case

Juan Barajas, Dimagi Gajanayake, Jose A Galvan, and Hasib Mangal, Department of Manufacturing Systems Engineering and Management, California State University, Northridge Northridge 91330, California, USA

ID 97 Designing an Arm Angle Trainer to Facilitate Ballet for All Kids

Elliot Sadler, George Thomas Mohan, Kethan Suresh, Tejas Kotian, Sai Praneeth, and Sepideh Abolghasem, Department of Manufacturing Systems Engineering and Management, California State University Northridge, Northridge 91330, California, USA

ID 59 A Strategic Framework to Investigate Potential of Prescriptive Maintenance Paradigms in Shipping Industry

Baris Yigin, Maritime Transportation Engineering PhD. Program, Istanbul Technical University, Istanbul, 34940, Turkey
 Metin Celik, Department of Basic Science, Istanbul Technical University, Istanbul, 34940, Turkey
 Industrial Data Analytics and Decision Support Systems Center, Azerbaijan State University of Economics, Baku, 1001, Azerbaijan

June 5, 2024 (Wednesday) – Session: 4:00 – 5:45 pm

4:00 – 5:45, WEDNESDAY, June 5

Onsite Room 1

AI and Machine Learning Workshop

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

4:00 – 5:45, WEDNESDAY, June 5

Onsite Room 2

Session Chair: Donovan Collier, UDC

Supply Chain and Logistics

ID 20 Comparing the Kronecker Models with the Intercept Model for Mixture Experiment

Javier Cruz-Salgado, Universidad de las Américas Puebla. Ex Hacienda Sta. Catarina Mártir S/N. San Andrés Cholula, Puebla. México.
 Edgar Augusto Ruelas-Santoyo, Instituto Tecnológico de Celaya. México
 Israel Miguel Andrés, Centro de Innovación Aplicada en Tecnologías Competitivas. Biomecánica. México
 Roxana Zaricell Bautista López, Universidad Politécnica del Bicentenario, Ingeniería Robótica. México

ID 101 Improving Agri-Food Supply Chain Resilience: A Comprehensive Review and Modeling Approach for Small Farmers

Sara Amar, School of Engineering, Bowling Green State University, Ohio, USA

ID 84 On the Design of Electric Charging Infrastructure for Drones

Fateme Hafizi and Mohammad Miralinaghi, Department of Civil, Architectural and Environmental Engineering, Illinois Institute of Technology, Chicago, IL, USA

ID 125 Parcel Consolidation in Last Mile Delivery by Vehicle and Drone

Semih Boz and Ahmed Ghoniem, Operations and Information Management Department, Isenberg School of Management, University of Massachusetts Amherst, Amherst, Massachusetts, USA

Amro El-Adle, Department of Information Technology & Decision Sciences, Strome College of Business, Old Dominion University, Norfolk, Virginia, USA

ID 103 Rise in Workforce and Internal Migration Towards the State of Nuevo León, México

Leonardo Gabriel Hernández Landa, Azucena Minerva García León and Argelia Vargas Moreno, Professor, Department of Industrial engineer and management, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

ID 105 Developing a Heuristic for a Multi-Source Fund Allocation Model for Food Procurement

Henry Ivuawuogu, Steven Jiang and Lauren Davis, Department of Industrial and Systems Engineering, North Carolina A & T State University Greensboro, NC 27405, USA

ID 90 Development and Implementation of a Standardized Supplier Certification and Validation Framework for Enhanced Pricing, Lead Time, and On-Time Delivery Performance

Tasfia Tarannum, Department of Data Analysis, Southern Arkansas University, Magnolia, Arkansas, 71753, USA

Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Magnolia, Arkansas, 71753, USA

4:00 – 5:45, WEDNESDAY, June 5**Onsite Room 3**

Diversity and Inclusion Panel sponsored by Ford Motor Company

Panel Chair: Prof. Don Reimer

Panel Speaker I

Esther Ososanya, Ph.D.
Department Chair and Professor of Electrical Engineering
School of Engineering and Applied Sciences
University of the District of Columbia
Washington, DC, USA

Panel Speaker II

Dr. Wilkistar Otieno
Associate Professor, Industrial and Manufacturing Engineering
Co-Director (Co-PI), UWM Industrial Assessment Center
Director, NSF/S-STEM: Preparing Engineers Computer Scientists

Panel Speaker III

Panel Speaker IV

4:00 – 5:45, WEDNESDAY, June 5**Onsite Room 4**

Session Chair: Dr. Hayder Zghair

Global Artificial Intelligence and Machine Learning

Speaker I

Dr. Hayder Zghair
Assistant Professor of Industrial Engineering
Department of Engineering and Physics
Director of Industrial Engineering Development
College of Science and Engineering
Southern Arkansas University
Magnolia, Arkansas 71753

Speaker II

Dr. Alper Senol
Professor- Supply Chain Management
Miami Dade College

Miami, Florida, United States

Speaker III

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

Speaker IV

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

Speaker V

4:00 – 5:45, WEDNESDAY, June 5

Zoom Room 5

Session Chair: Dr. Mizanur Rahman, IEOM Society

Digital Transformation and Industry 4.0

ID 47 Business-Driven Digital Transformation in Industry 4.0

Zhongyuan Li, Department of Multidisciplinary Engineering, College of Engineering, Texas A&M University, College Station, Texas, USA
Hamid Parsaei, Professor, Department of Industrial and Systems Engineering, College of Engineering, Texas A&M University, College Station, Texas, USA

June 6, 2024 (Thursday)

June 6, 2024 (Thursday) – Session: 8:00 – 9:45 am

8:00 – 9:45, THURSDAY, June 6

Onsite Room 1

Session Chair: Mukti M. Rana, PhD

Plenary III

Speaker I

Mukti M. Rana, PhD
Professor of Engineering
Division of Physics, Engineering, Mathematics and Computer Sciences
& Optical Science Center for Applied Research (OSCAR)
Delaware State University
Dover, DE 19901, USA

Speaker II

ID 292 Ahead of Industry 4.0, An Assessment of Corporate Readiness to Accommodate Industry 5.0

Rena Lewis, Graduate Student (Ph.D.), Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, Florida, USA
Ahmed Elshennawy, Professor and Executive Director, UCF Quality Institute, Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, Florida, USA

Speaker III

ID 129 Drive Your Future, Motorsports is more than entertainment; A case study of Donk Racing

E Shirl Donaldson, University of Michigan Flint, United States

Speaker IV

8:00 – 9:45, THURSDAY, June 6**Onsite Room 6****Session Chair: Dr. Pradeep Behera, Professor of Civil Engineering, Chair, Department of Civil Engineering, UDC**

Sustainability, Green Systems and Energy

ID 91 Application of Materiality Assessment to improve sustainability of processes in used product retail stores

Johnson Adebayo Fadeyi, Department of Industrial & Systems Engineering, University at Buffalo, Buffalo, NY, USA

ID 78 Decarbonizing the USA Steel Industry through Deep Learning Prediction of Electric Arc Furnace Flat Bath Temperatures

Farzana Islam, Ahmed Shoyeb Raihan, Hamed Khosravi and Imtiaz Ahmed, Department of Industrial and Management Systems Engineering West Virginia University, Morgantown, WV 26505, USA

ID 44 Efficient CO2 Separation Based on Mixed Matrix MembranesAbu Taher, Department of Industrial and Production Engineering, European University of Bangladesh, Mirpur, Dhaka-1216, Bangladesh
Department of Chemistry, Incheon National University, Incheon, South KoreaShohel Ahamed, Department of Industrial and Production Engineering, European University of Bangladesh, Mirpur, Dhaka-1216, Bangladesh
Tae-Hyun Kim, Department of Chemistry, Incheon National University, Incheon, South Korea**ID 102 Impact of ISO 14001:2015 on the Carbon Footprint of the Instituto Tecnológico Superior de Álamo Temapache, Veracruz, Mexico**Oscar Eduardo Rivas-Aguilar, Instituto Tecnológico Superior de Álamo Temapache, Tecnológico Nacional de México, Veracruz, Mexico
Lila Margarita Bada-Carbajal, Senior Lecturer of Management, Instituto Tecnológico Superior de Álamo Temapache, Tecnológico Nacional de México, Veracruz, Mexico
Gabriela Guadalupe Escobedo- Guerrero, Escuela Superior de Comercio y Administración, Unidad Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico,
Héctor Alejandro Jiménez-Avalos, Instituto Tecnológico Superior de Álamo Temapache, Tecnológico Nacional de México, Veracruz, Mexico
Arelly Hernández Palacios, Instituto Tecnológico Superior de Álamo Temapache, Tecnológico Nacional de México, Veracruz, Mexico**ID 18 Performance Analysis of Solar PV System using Cascaded H-bridge Sub-multilevel Inverter**

Mukhtiar Ahmed Mahar, Professor of Electrical Engineering, Faculty of Electrical, Electronics and Computer Engineering, Mehran University of Engineering and Technology, Jamshoro, Pakistan

Abdul Sattar Larik, Professor of Electrical Engineering, Faculty of Electrical, Electronics and Computer Engineering, Mehran University of Engineering and Technology, Jamshoro, Pakistan

Aneeqa Sattar, Student of Master's in Electrical Power, Faculty of Electrical, Electronics and Computer Engineering, Mehran University of Engineering and Technology, Jamshoro, Pakistan

ID 157 A Sustainable Product Design Approach to Improving Self-administered Medication

Reenu Singh PhD, Independent Researcher, Fairfax, Virginia, United States

8:00 – 9:45, THURSDAY, June 6**Onsite Room 7****Session Chair: Benjamin Peter, UDC**

Manufacturing, Assembly and Design

ID 55 Increasing Efficiency and Safety Factors on Installing & Uninstalling Blow Out Prevention Stacks Activity at Pertamina Drilling Services IndonesiaNg Willyam Wijaya, Bachelor of Science in Petroleum Engineering, Trisakti University, Driller in Pertamina Drilling Services Indonesia
Ardian Aminuddin, Bachelor of Science in Mechanical Engineering, Sebelas Maret University, Project Coordinator at Pertamina Drilling Services Indonesia, Jakarta, Indonesia
Fajar Wahyudianto, Rig Superintendent at Pertamina Drilling Services Indonesia, Jakarta, Indonesia**ID 74 Link Failure in Bucket Chains**Nicholas Lambrache, Professor of Mechanical Engineering, PNG University of Technology, Morobe, PNG
Brian N'Drelan, Department of Mechanical Engineering, PNG University of Technology Morobe, PNG
Lidia Olaru, Jesta Group, Montreal, Quebec, Canada**ID 15 Remanufacturing planning with uncertain parameters**

Yisha Xiang, University of Houston, United States

ID 37 Development and Characterization of PI and PI-Based Composites for Industrial and Advanced Engineering Applications Using SPS Technique: A Mini ReviewVE Ogbonna, Chemical, Metallurgical & Materials Engineering, Tshwane University of Technology, P.M.B X680, Pretoria, South Africa
Centre for Energy and Electric Power, Electrical Engineering, Tshwane University of Technology, P.M.B X680, Pretoria, South Africa
OM Popoola, Centre for Energy and Electric Power, Electrical Engineering, Tshwane University of Technology, P.M.B X680, Pretoria, South Africa
API Popoola, Chemical, Metallurgical & Materials Engineering, Tshwane University of Technology, P.M.B X680, Pretoria, South Africa**ID 70 Hydrodynamic Bearings Lubricated with Ferrofluids**Nicholas Lambrache, Professor of Mechanical Engineering, PNG University of Technology, Morobe, PNG
Lidia Olaru, Jesta Group, Montreal, Quebec, Canada

ID 66 Investigating the Mechanical Properties of Spark Plasma-Sintered Refractory Nitride-Reinforced Titanium Alloy Matrix Composites for Energy-Saving High-Temperature Aerospace Application

John Olorunfemi Abe and Abimbola Patricia Idowu Popoola, Department of Chemical, Metallurgical and Materials Engineering, Tshwane University of Technology, P.M.B. X680, Pretoria, South Africa

Olawale Muhammed Popoola, Centre for Energy and Electric Power, Tshwane University of Technology, P.M.B. X680, Pretoria, South Africa

ID 128 Solution Strategy for Group Decision Making in Materials Selection Problem Using Fuzzy MCDM: A Turbine Engine Case Study

Dr. Alaa Momena, Department of Industrial Engineering, College of Engineering, Prince Sattam Bin Abdulaziz University, Al-Kharj, Saudi Arabia

8:00 – 10:00, THURSDAY, June 6

Onsite Room 8

Six Sigma Workshop

Dr. Ahad Ali

Associate Professor

Director of Bachelor of Science in Industrial Engineering

Director, Master of Science in Industrial Engineering

Director of Smart Manufacturing and Lean Systems Research Group

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

Lawrence Technological University, Southfield, Michigan, USA

Executive Director, IEOM Society International

8:00 – 10:00, THURSDAY, June 6

Zoom Room 5

Session Chair: Aqib Islam, IEOM Society

Engineering Management and Project Management

ID 68 Factors Affecting Consumer Acceptance of Digital Payments in E-Commerce Segment

Raha Azarmahd, Department of Industrial Engineering, Faculty of Management, Istanbul Technical University, Istanbul, Turkey

Gulsah Hancerliogullari Koksalmis, Department of Industrial Engineering, Faculty of Management, Istanbul Technical University, Istanbul, Turkey

Department of Industrial Engineering and Management Systems, University of Central Florida, Orlando, FL, 32816, USA

ID 167 Identifying Gaps and Issues Between Critical Points of SNI 0036:2014 and Existing Quality Control Conditions in the SME**Shuttlecock Value Chain (Case Study: Sumengko Village Small Industry Center, Nganjuk)**

Rama Prananditha Sularto Abdi, Master Program of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia

Eko Liquiddanu and Eko Pujiyanto, Department of Industrial Engineering, Universitas Sebelas Maret, Surakarta, 57126, Indonesia

ID 231 Prospect and Opportunities for ISO Standards in Bangladesh

Faria Haque Pushpo and Md. Kutub Uddin, Department of Mechanical Engineering, Khulna University of Engineering and Technology (KUET)

Khulna, Bangladesh

ID 227 Application of Augmented Reality in Printed Products as an Innovation Alternative for the Printing Industry in Brazil

Pedro Leandro Lopes, Centro Paula Souza, Brazil

Eliane Ant6nio Sim6es, Centro Paula Souza, Brazil

ID 169 Use of The Sugar Cane Bagasse (Saccharum Officinarum) for The Preparation of Biodegradable Food Packages

Gonzalo Dennys Ramos Olortegui and Renzo Martin Barinotto Valencia, University of Lima, Lima, Peru

ID 286 Production Process Model Based on Lean Manufacturing, TPM and SLP to Increase the Service Level in Companies in the Textile Sector

Andrea Ono-Yamanija and Valeria Daniela Reategui-Gonzales, Facultad de Ingenieria, Universidad de Lima, Peru

Martin Fidel Collao-Diaz, Research Professor, Facultad de Ingenieria, Universidad de Lima, Peru

ID 308 Implementation of Business Skills and Management Curriculum from Universitas Tarumanagara to Ricci 1 Catholic High School Students

Lina Gozali, Faculty of Industrial Engineering, Universitas Tarumanagara, Jakarta, Indonesia

Christopher Robin, Faculty of Industrial Engineering, Universitas Tarumanagara, Jakarta, Indonesia

Kenneth Anderssen, Faculty of Industrial Engineering, Universitas Tarumanagara, Jakarta, Indonesia

Rafeal Jovan Priyanto, Faculty of Industrial Engineering, Universitas Tarumanagara, Jakarta, Indonesia

Riki Rahardja Wirja, Sekolah Menengah Atas Katolic Ricci, Jakarta, Indonesia

Dewi Rosita, Sekolah Menengah Atas Katolic Ricci, Jakarta, Indonesia

June 6, 2024 (Thursday) – Session: 10:00 am – 1:00 pm – Onsite Room 1

Keynote Speakers

Keynote IX: Thursday, June 6, 2024, 10:00 – 10:40 am

Robert J. Wenier

Global Head of Cloud and Infrastructure
AstraZeneca Pharmaceuticals LP
Gaithersburg, Maryland, USA

Keynote X: Thursday, June 6, 2024, 10:40 am – 11:20 am

Victor R. McCrary, PhD
Vice President for Research
The University of the District of Columbia
Vice Chair, National Science Board

11:20 – 11:40 Networking Break

Keynote XI: Thursday, June 6, 2024, 11:40 am – 12:20 pm

Dr. Wesley L. Harris
Charles Stark Draper Professor of Aeronautics and Astronautics
Massachusetts Institute of Technology (MIT)
Vice President of National Academy of Engineering

1:00 Buffet Lunch

June 6, 2024 (Thursday) – Session: 2:00 – 3:45 pm

2:00 – 2:45, THURSDAY, June 6

Onsite Room 1

Social Robotics Workshop

Anshu Saxena Arora, Ph.D., PMP
Tenured Associate Professor of Marketing
School of Business and Public Administration
University of the District of Columbia (UDC)

Amit Arora, Ph.D.
Associate Professor of Supply Chain Management
School of Business and Public Administration
University of the District of Columbia (UDC)
Washington, DC, USA

2:00 – 2:45, THURSDAY, June 6

Onsite Room 6

Session Chair: Dr. Pradeep Behera, Professor of Civil Engineering, Chair, Department of Civil Engineering, UDC

Simulation, Optimization and Productivity Improvement

ID 80 Enhancing Disaster Resilience: Optimizing Debris Management Strategies for End-of-Life Buildings Amidst Uncertainty
Moddassir Khan Nayeem and Omar Abbaas, Department of Mechanical Engineering, University of Texas at San Antonio, San Antonio, TX 78249, USA

ID 58 Enhancing Rig Productivity during PLO (Persetujuan Layak Operasi) Recertification Process through the Implementation of Utilized Moving Time (UMT) Method: Case Study of Rig PDSI #30.2/D1000-E
Ardian Aminuddin, Project Coordinator, PT. Pertamina Drilling Services Indonesia, Jakarta Selatan, 12920, Indonesia
Andre Gunawan Nainggolan, Wendy Yulianto and Taruna Rachmad Tri Aji, Drilling Operation, PT. Pertamina Drilling Services Indonesia, Jakarta Selatan, 12920, Indonesia
Elang Lesmono and Ilham Saeful Akbar, Maintenance Support, PT. Pertamina Drilling Services Indonesia, Jakarta Selatan, 12920, Indonesia

ID 174 A Study of Peak Day Operations at Jaya's Kitchen – A South Indian Restaurant
M Ali Montazer, Ph.D., Professor, Industrial and Systems Engineering
Abinav Irukulla and Kiran Jakkli Sounder Karthi, University of New Haven, United States

ID 171 Aerospace Part Manufacturing Analysis Using Simulation
Christopher Rowley, Miguel Correa and M. Ali Montazer, Ph. D., University of New Haven United States

ID 12 Exploratory research study on key performance systems used to improve efficiency of brick artisans' within the brick construction industry in South Africa
Lucky Boy Tebogo Makhubedu, Faculty of Science, University of Johannesburg, 55 Beit St, Doornfontein, Johannesburg, South Africa

Charles Mbohwa, Faculty of Engineering and Built Environment, University of Johannesburg, 55 Beit St, Doornfontein, Johannesburg, South Africa
 Nelson Madonsela, Faculty of Engineering and Built Environment, University of Johannesburg, 55 Beit St, Doornfontein, Johannesburg, South Africa

ID 127 Impact of Patient Assignment Policy on Hospitalist Workloads

Ahmed Hamzi, Assistant Professor, Department of Industrial Engineering, Jazan University, Saudi Arabia
 Bryan Norman, Professor and Department Chair, Department of Industrial, Manufacturing & Systems Engineering, Texas Tech University, USA

ID 140 Predicting Rheology of UV- Curable Nanoparticle Ink Components and Compositions for Inkjet Additive Manufacturing

Cameron Lutz, MS Industrial Engineering Student, Department of Industrial and Manufacturing Engineering, California Polytechnic University – San Luis Obispo, San Luis Obispo, CA 93407 USA
 Xuan Wang, Assistant Professor of Industrial Engineering, Department of Industrial and Manufacturing Engineering, California Polytechnic University – San Luis Obispo, San Luis Obispo, CA 93407 USA
 Erik Sapper, Associate Professor of Chemistry, Department of Chemistry and Biochemistry, California Polytechnic University – San Luis Obispo San Luis Obispo, CA 93407 USA

ID 162 Proposing a New Dynamic Safety Stock Adjustment System: Balancing Service Level Targets and Financial Constraints

Sachin Sivankutty, Master's Student in Industrial and Systems Engineering, Industrial and Systems Engineering (ISE) Department, Charles W. Davidson College of Engineering, San José State University, One Washington Square, San José, CA, USA
 Behin Elahi, Associate Professor, Industrial and Systems Engineering (ISE) Department, Charles W. Davidson College of Engineering, San José State University, One Washington Square, San José, CA, USA

2:00 – 2:45, THURSDAY, June 6**Onsite Room 7****Session Chair: Catherine Maware, University of Kentucky, Lexington, KY, USA****Engineering Education and Curriculum Improvement****ID 123 Novel Algorithm for Tracking Lost or Stolen Vehicle**

Ali AlArjani, Department of Industrial Engineering, College of Engineering, Prince Sattam Bin Abdulaziz University, AlKharj 16273, Saudi Arabia

ID 41 Online Teaching and Learning Challenges facing the Construction Management Students in KwaZulu-Natal, South Africa

P. Sohuma, Durban University of Technology, KwaZulu Natal, Durban, South Africa
 Dr. Modupe.C Mewomo, Department of Construction Management and Quantity Surveying, Faculty of Engineering and Built Environment, Durban University of Technology, Durban, South Africa
 Dr. C Okorafor, Department of Construction Management and Quantity Surveying, Faculty of Engineering and Built Environment, Durban University of Technology, Durban, South Africa

ID 42 Prerequisite Knowledge based Automated Course Planning with Hierarchical Knowledge Relationship

John Jung-Woon Yoo and Saeed Saboury, Department of Industrial & Manufacturing Engineering & Technology, Bradley University, Peoria, IL, USA
 Preamnath Balachandranath, Senior Industrial Engineer, Cummins Inc. Columbia, IN, USA

ID 86 The Effectiveness of Teaching Systematic Problem-solving Based on The Revised Bloom's Taxonomy In Lean Manufacturing Training

Catherine Maware, Fujio Cho Engineering Technology, Stanely and Karen College of Engineering, Assistant Professor of Lean Systems Engineering Technology, University of Kentucky, Lexington, KY, USA
 David M Parsley, Fujio Cho Engineering Technology, Stanely and Karen College of Engineering, Assistant Professor of Lean Systems Engineering Technology, University of Kentucky, Lexington, KY, USA

2:00 – 3:45, THURSDAY, June 6**Onsite Room 8****Session Chair: Bhawana Rathore, Assistant Professor, Indian Institute of Management Sambalpur, India****Lean Six Sigma and Operations Excellence****ID 8 Assessing safety of healthcare workers through structural equation modelling (SEM) – Adaptive neuro-fuzzy inference system (ANFIS) during COVID 19**

Bhawana Rathore, Assistant Professor, Indian Institute of Management Sambalpur, India

ID 4 Improving Operational Performance of Low-level Technology Organizations Through Quality Management

Hiluf Reda, Assistant Professor, Department of Industrial Engineering, Debre Berhan University, Debre Berhan, Ethiopia
 Akshay Dvivedi, Senior Professor, Department of Mechanical and Industrial Engineering, Indian Institute of Technology, Roorkee, Uttarakhand, India

ID 89 Top surface Quality Analysis of Aluminum Structured: Lean Six Sigma Methodology

Hamdy E. Khalaf, Department of Data Analysis, Southern Arkansas University, Magnolia, Arkansas, 71753, USA
 Hayder Zghair, Department of Engineering and Physics, Southern Arkansas University, Magnolia, Arkansas, 71753, USA
 Donna Miller, Southern Aluminum, Southern Arkansas University, Magnolia, Arkansas, 71753, USA
 Enrique Contreras, Southern Aluminum, Southern Arkansas University, Magnolia, Arkansas, 71753, USA

ID 255 An Examination of Barriers and Support Systems for Small and Medium Enterprises in South Africa's Coal Mining Sector

Henry Ncube, University of Johannesburg, Department of Quality and Operations Management, South Africa
 Welcome Sandawana, Epworth Minerals

ID 193 Most Frequent Chiller's Faults: An Empirical Predictive Maintenance Study

Malek Almobarek, Department of Design, Manufacturing, and Engineering Management, Faculty of Engineering, University of Strathclyde

Glasgow, United Kingdom

ID 130 Quality 5.0 Architecting: A Techno-Human-Centric Integrated Framework

Johnson Olaitan, Department of Industrial Engineering and Management Systems, University of Central Florida, USA
 Ahmad Elshennawy, Department of Industrial Engineering and Management Systems, University of Central Florida, USA

2:00 – 3:45, THURSDAY, June 6**Zoom Room 5****Session Chair: Prof. Vitor Caldana, IFSP, Sorocaba, Brazil****Supply Chain and Logistics****ID 219 Analysis of Operational Delays in Dumper Cycle Time in Open Pit Mines**

Shafi Muhammad Pathan and Abdul Ghani Pathan, Department of Mining Engineering, Mehran University of Engineering and Technology, Jamshoro, 76062, Sindh, Pakistan

Muhammad Saad Memon, Department of Industrial Engineering and Management, Mehran University of Engineering and Technology, Jamshoro, 76062, Sindh, Pakistan

ID 179 Improvement Proposal for Inventory Management Based on DDMRP in Supply Warehouse of a Metal mechanical Company

Ariel Gallegos-Oliden, Cristina Rodriguez-Herrera and Carlos Urbina-Rivera, Faculty of Engineering, Universidad de Lima, Perú

ID 195 Navigating Risks: The Imperative of Research in CIT and Hazmat Transport Security

Alireza Fallahtafi, Department of Operations, Weatherhead School of Management, Case Western Reserve University, Cleveland, OH 44106, USA
 Tan Khoa, Department of Business Management, Weatherhead School of Management, Case Western Reserve University, Cleveland, OH, USA

June 6, 2024 (Thursday) – Session: 4:00 – 5:45 pm**4:00 – 5:45, THURSDAY, June 6****Onsite Room 1****Off for Awards Dinner Setup****4:00 – 5:45, THURSDAY, June 6****Onsite Room 6****Session Chair: Dr. Pradeep Behera, Professor of Civil Engineering, Chair, Department of Civil Engineering, UDC****Engineering Management and Project Management****ID 17 Evaluation of Automotive Maintenance Practice Firms in Selected Area in Lagos State**

Akinlo Olorunju Mogbojuri and Oludolapo Akanni Olanrewaju, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa

ID 19 Exploring the Critical Success Factors in Agile Project Management: A Comprehensive Survey Analysis

Antonio Carlos Pacagnella Junior, School of Applied Sciences, Associate Professor, State University of Campinas, Limeira, São Paulo, Brasil
 Vinicius Romeiro da Silva, FHO University Center, Professor, Araras, São Paulo, Brasil
 Plinio Thomaz Aquino Junior, FEI University Center, Professor, São Bernardo do Campo, São Paulo, Brasil

ID 93 Managing Quality 4.0 to Industry 4.0 Organizational Excellence

Milton Krivokuca, Associates, United States

ID 136 Exploring the Application of Statistical Process Control Charts to Define Earned Value Control Limits in Infrastructure Projects

Alvaro Cuadros and Diana Bohada, School of Industrial Engineering, Universidad del Valle, Cali, Colombia

ID 161 Navigating Complexity in Mega Construction Projects: Integrating FRAM with PMBOK for Enhanced Project Management — A Case Study of the Channel Tunnel Project

Amir Atariani, Department of Mechanical Engineering, École de Technologie Supérieure, Montreal, Quebec, Canada
 Yvan Beauregard, Professor of Department of Mechanical Engineering, École de Technologie Supérieure, Montreal, Quebec, Canada

4:00 – 5:45, THURSDAY, June 6**Onsite Room 7****Session Chair: Dr. Tariq Masood, Frostburg State University, Frostburg, Maryland, United States****Case Studies and Best Practices****ID 7 Industrial Productivity Improvement Techniques at Northern Agro Services Ltd: A Case Study**

Durlave Roy, Bangladesh Institute of Management, Bangladesh

ID 178 An Enhanced Management and Automated Test Process for Digital Relay Using Wavelet Algorithm and LabView

Emad A. Awada, Associate Professor, Department of Electrical Engineering, Al-Balqa Applied University, Amman, Jordan

ID 64 Maintenance Strategy Production Best Practices – Pragmatic Case Studies and Operations Improvement

Tariq Masood and Jamil Abdo, Department of Engineering, Frostburg State University, 101 Braddock Road, Frostburg, Maryland, United States

ID 65 Operational Reliability- Production Best Practice Pragmatic Case Studies & Improvement

Jamil Abdo and Tariq Masood, Department of Engineering, Frostburg State University, 101 Braddock Road, Frostburg, Maryland, United States

4:00 – 5:45, THURSDAY, June 6**Onsite Room 8****Session Chair: Dr. Anteneh Girma, Associate Professor, Department of Computer Science and Information Technology, UDC**

Business Management and Operations Management

ID 50 Coal Stockpile Verification Parameters: A Case Study of A Junior Coal Mining Company

Henry Ncube, University of Johannesburg, Department of Quality and Operations Management, South Africa

Welcome Sandawana, Epworth Minerals

ID 72 Designing Strategies to Improve Digital Maturity in BAPETEN Licensing and Inspection System Online (BALIS Online)

Amiral Rasyid and Novandra Rhezza Pratama, Industrial Engineering Department, Engineering Faculty, Universitas Indonesia, Depok, West Java, Indonesia

ID 14 Leadership Gold – How to be a Leader Worth Following

Ed Krow, LLC, United States

ID 61 The Effect of Data Quality on Decision-Making A Quasi-Experimental Study

Afnan Alabduljabbar and Abdulaziz Alshammari, College of Computer and Information Sciences, Department of Information Systems, Imam Mohammad bin Saud Islamic University, Riyadh, Saudi Arabia

ID 3 Unlocking Your Personal Brand Through Intentionality

Skot Waldron, United States

ID 95 Benefits and challenges of productivity management systems within the masonry brick production small and medium scale enterprises in Gauteng: A theoretical review of literature

Lucky Boy Makhubedu, Faculty of Science, University of Johannesburg, Johannesburg, South Africa

Charles Mbohwa, Pro-Vice Chancellor Strategic Partnerships and Industrialisation, University of Zimbabwe, Harare, Zimbabwe

Nelson Sizwe Madonsela, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

4:00 – 5:45, THURSDAY, June 6**Zoom Room 5****Session Chair: Dr. Mizanur Rahman, IEOM Society**

Digital Manufacturing, Industry 4.0 and IoT

ID 46 Influence of Industry 4.0 on the Service Sector: A Scoping Review

Zhongyuan Li, Department of Multidisciplinary Engineering, College of Engineering, Texas A&M University, College Station, Texas, USA

Hamid Parsaei, Professor, Department of Industrial and Systems Engineering, College of Engineering, Texas A&M University, College Station, Texas, USA

ID 79 Lean Thinking in Healthcare 5.0 Technologies: An Exploratory Review

Goksu Avdan and Sinan Onal, School of Engineering, Department of Industrial Engineering, Southern Illinois University Edwardsville, Edwardsville, IL, USA

ID 100 Smart Manufacturing Nudging Design with Conjoint Prospect Theoretic Modeling of Nudging Behavior

Shu Wang, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA, USA

Feng Zhou, Assistant Professor of College of Engineering and Computer Science, Dearborn, MI 48128, USA

ID 302 Projects in Mechatronics Engineering Education for Industry 4.0

Claudio Campana, Professor Mechanical Engineering, College of Engineering, Technology and Architecture, University of Hartford, W. Hartford, CT, USA

Saeid Moslehpour, Professor Electrical Computer Engineering, College of Engineering, Technology and Architecture, University of Hartford, W. Hartford, CT, USA

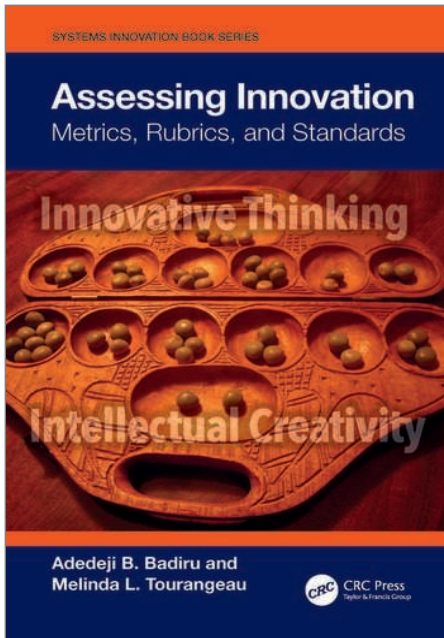
June 6, 2024 (Thursday) - Session: 6:00 – 9:00 pm

Conference Awards Ceremony and Dinner

Participants from the following countries and territories

1. Bangladesh
2. Brazil
3. Canada
4. Chile
5. China
6. Colombia
7. Ethiopia
8. India
9. Indonesia
10. Iran
11. Italy
12. Jordan
13. Korea, Republic of
14. Mexico
15. Nepal
16. Nigeria
17. Pakistan
18. Papua New Guinea
19. Peru
20. Philippines
21. Russia
22. Saudi Arabia
23. South Africa
24. Spain
25. Taiwan
26. Thailand
27. Turkey
28. United Arab Emirates
29. United Kingdom
30. United States
31. Zimbabwe

20% Discount with code EFLY01



Feb 2026: 228pp 20 B/W illustrations
Hb: 978-1-032-51418-5 | \$79.96
Pb: 978-1-032-51702-5 | \$31.96
eBook: 978-1-003-40354-8

For more information visit:
www.routledge.com/9781032514185

Assessing Innovation

Metrics, Rubrics, and Standards

Adedeji B. Badiru, Melinda Tourangeau

We cannot effectively manage and control what we cannot measure and assess. Lack of appropriate assessment tools and measures have been cited as a reason for project failures, in terms of cost, schedule, and quality. This book launches the methodology for assessing innovation using relevant and sustainable metrics, rubrics, and standards.

Assessing Innovation: Metrics, Rubrics, and Standards, provides a new view for embracing innovation and establishing a quantitative basis for determining innovation progress. It bridges innovation with practice through a systems view while incorporating the nonnegotiable human element and the different roles innovative members carry out. This book offers standards that will guide readers as they tackle sustaining innovation and leverages Badiru's Umbrella Model in the process.

The inclusion of methodologies suitable for determining where and when innovation is happening, and to what extent it is currently being carried out, make this a unique book, along with being the only book that addresses innovation metrics, rubrics, and standards in an integrated fashion. Seen as a way to help advance the diverse pursuit of innovation, this book is an ideal read for those in engineering, business, industry, academia, government, and the military.

Adedeji B. Badiru is a Professor of Systems Engineering at the Air Force Institute of Technology and a registered professional engineer. He is also a fellow of the Institute of Industrial Engineers and Fellow of the Nigerian Academy of Engineering. Dr. Badiru has a BS degree in Industrial Engineering, an MS in Mathematics, an MS in Industrial Engineering from Tennessee University, and a PhD in Industrial Engineering from the University of Central Florida. He is the author of several books and technical journal articles and has received several awards and recognitions for his accomplishments. He is also a series editor for CRC Press/Taylor and Francis.

Melinda L. Tourangeau is the Executive Director of the RVJ Institute, a 501 c (3) center of excellence and research institute dedicated exclusively to excellence in the electromagnetic environment. She possesses advanced degrees in Electrical Engineering and Business Administration and is currently pursuing a PhD in Education with an emphasis on organizational systems. Ms. Tourangeau is considered a subject matter expert in Electromagnetic Warfare and Electromagnetic Spectrum Operations. She has authored numerous reports for the Department of Defense and US Congress and given presentations to audiences in Europe, Hawaii, Canada, and the United States. Her background emphasizes electro-optics, lasers, and semiconductor physics, as well as organizational and leadership systems. Her career includes serving as a Department of Defense program manager for critical Electromagnetic Warfare programs and serving in the U.S. Air Force.

TABLE OF CONTENTS

1. Fundamentals of Measurements and Rubrics.
2. Defining Matrix and Metrics for Innovation.
3. Concept of Standards, Rubrics, and Metrics for Innovation.
4. Statistical Engineering Approach to Innovation Metrics.
5. Engineering Economic Analysis of Innovation Projects.
6. Economic Metrics for Innovation.
7. Quantifying the Utility of Innovation.
8. Innovation on the Edge of Dollars: A Case Study

If you have ever thought of writing a book in your area of expertise, this is your chance
Please contact Cindy Renee Carelli, Executive Editor, CRC Press/Taylor and Francis at cindy.carelli@taylorandfrancis.com

If you are interested in writing a book for the Systems Innovation Book Series <https://www.routledge.com/Systems-Innovation-Book-Series/book-series/CRCYSINNOV> please contact Dr. Adedeji Badiru, Professor of Systems Engineering, Air Force Institute of Technology, at deji@badiru.com



* Please note that this discount code cannot be used in conjunction with any other offer or discount and only applies to books purchased directly via www.routledge.com. This code expires on 31 March 2024.

International Journal of Industrial Engineering and Operations Management



Emerald Publishing Services

**IEOM Student Chapter at University of Central Florida, Orlando, Florida, USA
IEOM UCF Student Chapter**

Faculty Advisor

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



IEOM Student Chapter at Western Michigan University, Kalamazoo, MI, USA**Faculty Advisors****Dr. Lee Wells**

Associate Professor
Industrial and Entrepreneurial Engineering &
Engineering Management
Western Michigan University
Kalamazoo MI, USA

Dr. Jim Burns

Assistant Professor
Industrial and Entrepreneurial Engineering &
Engineering Management
Western Michigan University
Kalamazoo MI, USA

University and Department Website:

<https://wmich.edu/>

<https://wmich.edu/ieeem/>

Department Chair/Head: Dr. Azim Houshyar

Chapter Officers

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

Planned Activities:

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



IEOM Student Chapter at 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 Yakonsk
- 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: Amar 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 Griffe
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, 2024 – 2025

President: Snehal Arun Barge

Chapter Members, 2024 – 2025

Komal Gurrala
Advit Muley
Jaivik Rami
Shiva Sai Bodige
Abhishej Raj Thallapally
Ramesh Babu Munagala
Arvind Undavalli
Karthik Arava
Neel Patel

Dheeraj Reddy Karnati
Nithin Kumar Aili
Fahad Ahmed Mohammad
Prateek Kavvampalli
Valeria Ortega
Evelyn Roen
Mohammed Idris Syed
Ahmed Mohammed Maqdoom
Joe Puranen



IEOM Student Chapters around the World

Algeria	83. IITS, India	166. University of Engineering and Technology, Lahore
1. Adrar University	84. Birla Institute of Tech & Sciences (BITS Pilani)	167. UOT – Nowshera
Australia	85. Amrita School of Business – Bangalore	168. Information Technology Univ. of the Punjab, Lahore
2. Queensland University of Tech., Brisbane	86. Amrita school of Arts and Sciences, Mysuru	Papua New Guinea
3. UNSW-Canberra	87. Amrita School of Business, Coimbatore	169. Papua New Guinea University of Technology
4. University of Melbourne	88. Aligarh Muslim University, Aligarh	Paraguay
5. University of Wollongong	89. Mahant Bachittar Singh College Eng & Tech, Jammu	170. National University of Asuncion
6. University of Adelaide	90. Baba Banda Singh Bahadur Eng College	171. Universidad del Cono Sur de las Américas
Bahrain	91. Ramaiah University of Applied Sciences	Peru
7. University of Bahrain	92. Nawab Shah Alam Khan College Eng & Tech (NSAKCET)	172. National Univ of San Antonio Abad, Cusco
Bangladesh	93. Global Institute Of Eng and Technology, Hyderabad	173. Universidad de Lima (ULima)
8. Ahsanullah University of Sci & Tech (AUST)	94. VNR Vignana Jyothi Institute of Eng and Technology	174. Universidad Peruana de Ciencias Aplicadas (UPC)
9. Bangladesh Institute of Management (BIM)	95. Siddhartha Institute of Engineering & Technology	175. Universidad Ricardo Palma (URP)
10. Bangladesh University of Textiles (BUTEX)	96. Osmania University – The University College of Eng	176. Pontificia Universidad Católica del Perú (PUCP)
11. BUET	97. VJTI Mumbai – Veermata Jijabai Technologic. Institute	177. Universidad Privada del Norte (UPN)
12. CUET	98. BML Munjal University, Gurugram, India	178. Universidad Continental (UContinental)
13. Daffodil International University (DIU)	99. AKTU University, Kanpur, India	179. Universidad de Ingeniería y Tecnología (UTEC)
14. DUET, Gazipur	100. Mufakkhamjah College of Eng. and Tech, Hyderabad	180. Universidad Nacional de Ingeniería (UNI)
15. European University of Bangladesh	101. Methodist College of Engineering and Technology	181. University of San Martin de Porres (USMP)
16. International Islamic University of Chittagong	102. Vardhaman College of Engineering	Philippines
17. IUBAT	103. Dr B R Ambedkar National Institute of Technology, Jalandhar	182. Bulacan State University, Malolos City, Bulacan
18. Jessore University of Science and Technology	Indonesia	183. LPU Laguna
19. Khulna University (KU)	104. Atma Jaya Catholic University	184. Mapua University
20. Khulna University of Eng and Tech (KUET)	105. Bina Nusantara University (Binus), Indonesia	185. De La Salle University (DLSU) Manila
21. Military Institute of Science and Technology	106. Institut Teknologi Bandung	186. Adamson University
22. National Institute of Textile Eng & Res (NITER)	107. Institut Teknologi Sepuluh Nopember (ITS)	187. CEBU Technological University
23. Rajshahi University (RU)	108. Sampoerna University, Jakarta	188. University of San Jose-Recoletos
24. SUST	109. Shipbuilding Institute of Polytechnic Surabaya	Portugal
25. University of Chittagong	110. Tarumanagara University	189. ISEL – Instituto Superior De Engenharia de Lisboa
26. World University Bangladesh (WUB)	111. UIN Sultan Syarif Kasim, Riau	190. FCT NOVA
27. BAUST	112. Universitas Diponegoro (Undip)	Qatar
28. American International University-Bangladesh (AIUB)	113. Universitas Gadjah Mada (UGM)	191. Qatar University
Bolivia	114. Universitas Iqra Buru	Saudi Arabia
29. Universidad Católica Boliviana	115. UIN Sunan Kalijaga, Yogyakarta	192. Alfaisal University
Botswana	116. Universitas Islam Negeri Alauddin Makassar	193. Effat University
30. University of Botswana	117. Universitas Sebelas Maret (UNS), Surakarta	194. King Abdulaziz University (KAU)
Brazil	118. University of Indonesia	195. King Abdulaziz University, Rabigh
31. Federal University of Sao Carlos (UFScar)	119. Universitas Sumatera, Utara Medan	196. King Fahd Univ of Petroleum and Minerals (KFUPM)
32. Federal University of Santa Catarina (UFSC)	120. Narotama University, Surabaya	197. King Khalid University, Abha
33. University of Sao Paulo (USP) – Sao Carlos	121. Universitas Pakuan, Bogor	198. King Saud University (KSU)
34. Federal Institute of Sao Paulo, Sorocaba	122. Trilogi University	199. Umm Al-Qura University (UQU)
35. FACENS University, Sorocaba	Iran	200. Princes Nourah University (PNU)
Canada	123. MehrAstan University, Guilan	201. Prince Sattam Bin Abdulaziz University
36. Concordia University	124. University of Evvanekey	202. Prince Sultan University (PSU)
37. Humber Institute of Tech and Adv Learning	125. Technical and Vocational University (TVU)	203. Taibah University
38. Polytechnic Montreal	126. Babylon University	204. University of Tabuk
39. University of New Brunswick at Fredericton	Israel	205. Taibah University
40. University of Waterloo	127. Sapir Academic College	206. University of Business and Technology
41. University of Windsor	128. Shamooun College of Engineering (SCE), Ashdod	207. King Khalid University, Abha
Colombia	Italy	208. University of Bisha
42. Fundación Univ. Tecn. Comfenalco, Cartagena, Bolívar	129. University of Bologna	209. Taif University
43. University of Rosario, Bogota	130. University of Salento	South Africa
44. University of Quindío	Japan	210. Durban University of Technology (DUT)
45. Universidad de San Buenaventura, Cali, Valle	131. Ashikaga University	211. Tshwane University of Technology (TUT)
46. Institución Universitaria Colegios de Colombia	Jordan	212. University of Johannesburg (UJ)
47. Escuela Colombiana de Ingeniería Julio Garavito	132. Hashemite University	213. University of South Africa (UNISA)
48. Universidad Católica de Colombia	Kenya	214. Vaal University of Technology (VUT)
49. Universidad Santo Tomás de Aquino	133. Kenyatta University, Nairobi	Sri Lanka
50. Fundación Universitaria Internacional de La Rioja	Libya	215. University of Kelaniya
51. Universidad América	134. Libyan Academy	216. University of Peradeniya
52. Universidad Militar Nueva Granada (UMNG)	Malaysia	Sudan
53. Universidad Cooperativa de Colombia (UCC)	135. Universiti Malaysia Sabah (UMS)	217. Sudan University of Science and Tech Khartoum
54. Universidad del Norte	136. Universiti Putra Malaysia (UPM)	Thailand
55. Corporación Universitaria Minuto de Dios – UNIMINUTO	137. Universiti Teknologi Malaysia (UTM)	218. Chulalongkorn University, Bangkok
56. Fundación Universitaria de Popayán	138. Universiti Tun Hussein Onn Malaysia (UTHM)	219. Chiang Mai University
57. Universidad Nacional Abierta y a Distancia (UNAD)	139. Universiti Utara Malaysia (UUM)	Turkey
Costa Rica	Mexico	220. Turkish-German University
58. University of Costa Rica	140. Instituto Politécnico Nacional (IPN), Mexico	UAE
Czech Republic	141. Universidad del Caribe, Cancun	221. University of Science & Technology of Fujairah
59. University of West Bohemia, Pilsen	142. Tecnológico de Monterrey, Campus Monterrey	UK
Ecuador	143. Universidad Industrial de Santander	222. University of Derby
60. Technical University of Ambato	144. Universidad Iberoamericana	223. University of the West of England, Bristol
61. Universidad San Francisco de Quito	145. Universidad de Guanajuato	USA
Egypt	Morocco	224. Central Connecticut State University
62. Zagazig University	146. Akhawayn University	225. Eastern Michigan University
63. Fayoum University	147. Ecole Mohammadia d'Ingénieurs (EMI)	226. Lawrence Technological University, Michigan
64. British University in Egypt	148. Sidi Mohamed Ben Abdellah University of Fez	227. University of the District of Columbia
Ethiopia	149. N. School of Appl Sci. Kenitra, Ibn Tofail Univ	228. Indiana State University
65. Bahir Dar Institute of Technology	150. Ecole Supérieure De Technologie, Fez	229. Florida Polytechnic University
66. Addis Ababa University Institute of Technology	Mozambique	230. Buffalo State College
Finland	151. Eduardo Mondlane University	231. Southern Arkansas University
67. University of Vaasa	Namibia	232. Western Michigan University
France	152. National Univ. of Sci. and Tech. in Windhoek	233. Loyola University Chicago
68. IESEG School of Management	Nepal	234. Minnesota State University, Mankato
69. Lorraine University, Metz	153. Kathmandu University	235. Central State University
Ghana	154. Tribhuvan University	236. University of Central Florida
70. Technological Education Institute (TEI), Larissa	Nigeria	Venezuela
Greece	155. Covenant University	237. Catholic University Andrés Bello, Caracas
71. Accra Technical University	156. University of Ibadan	Vietnam
Haiti	157. University of Nigeria, Nsukka	238. CFVG, Ho Chi Minh City, Vietnam
72. Université Quisqueya	158. University of Benin	Zambia
India	159. Olabisi Onabanjo University	239. University of Zambia
73. College of Eng and Tech, Bhubaneswar, Odisha, India	Oman	240. Copperbelt University
74. College of Engineering Guindy, Chennai	160. Sultan Qaboos University	241. Evelyn Hone College
75. Guru Nanak Dev Engineering College	161. Middle East College	Zimbabwe
76. Pandit Dendayal Petroleum Univ., Gujrat	Pakistan	242. University of Zimbabwe, Harare
77. P.D.A. College of Engineering, Gulbarga	162. Dawood University of Eng and Technology, Karachi	243. National University of Science and Technology
78. Vellore Institute of Technology	163. Government College University Faisalabad	244. Harare Institute of Technology (HIT)
79. Vidya Jyothi Institute of Technology, Hyderabad	164. Mehran University of Eng and Tech, Jamshoro, Sindh	245. Women's University in Africa (WUA)
80. Universal College of Eng & Tech (UCET), Guntur	165. Riphah International University, Lahore Campus	246. Chinhoyi University of Technology (CUT)
81. National Institute of Technology (NIT), Warangal		High School Chapters
82. Jawaharalal Nehru Technological University Hyderabad		247. Bay Area of San Francisco & San Jose, CA
		248. Arongghata, Khulna, Bangladesh

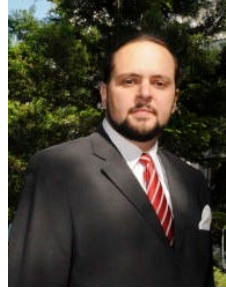
IEOM Global Council



Professor Charles Mbohwa
Past Pro-Vice Chancellor Strategic Partnerships and Industrialisation
University of Zimbabwe
Mt Pleasant, Harare, Zimbabwe



Aaron Rubel
University Research & Technology Partnerships Manager
Airbus Americas
Mobile, Alabama, United States



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



Eldon Caldwell, Ph.D., Sc.D., Ed.D.
President, 2023 - 2025
Full Professor/Cathedraticus
Industrial Engineering Department
University of Costa Rica
San Jose, Costa Rica



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



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



Adedeji B. Badiru, Ph.D., PE, FIIE
Dean, Graduate School of Engineering and Management
Professor of Systems Engineering
Air Force Institute of Technology
Wright-Patterson Air Force Base
Dayton, Ohio, USA



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



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



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



Prof. Hamid Parsaei, Ph.D., PE
President, 2021-2023
Professor, Industrial and Systems Engineering and Director, College of Engineering Accreditation and Assessment, Texas A&M University,
College Station, USA



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



IEOM Society

"Achieving and Sustaining Operational Excellence"

www.ieomsociety.org

Industrial Engineering and Operations Management Society International

Upcoming IEOM Conferences



7th European Conference on Industrial Engineering & Operations Management
Augsburg (Greater Munich), Germany
July 16-18, 2024
Host & Venue: Augsburg Technical University



5th Asia Pacific Conference on Industrial Engineering and Operations Management
Sept. 10-12, 2024, Tokyo, Japan
Host: Hosei University, Venue: Waseda Univ.



Industrial Engineering and Operations Management Annual World Congress
October 9-11, 2024, Detroit, USA
Venue: Lawrence Technological University



3rd Australian Conference on Industrial Engineering and Operations Management
Sydney, Australia, Sept, 24-26, 2024
Venue: HILTON SYDNEY



UNIVERSITY OF WOLLONGONG AUSTRALIA



15th International Conference on Industrial Engineering and Operations Management
February 18-20, 2025, Singapore
Host: Singapore University of Social Sciences



6th South American IEOM Conference

Sorocaba, Sao Paulo, Brazil, May 13-15, 2025

Host and Venue: Facens University, Sorocaba, Brazil

Conference Chair: Dr. Rodrigo Luiz Gigante

10th North American IEOM Conference

Orlando, Florida, June 24-26, 2025

Host and Venue: University of Central Florida

Conference Chair: Dr. Luis Rabelo, UCF

Industrial Engineering and Operations Management Society International

IEOM Society International, 21411 Civic Center Dr., Suite 205, Michigan, USA. www.ieomsociety.org