

IEOM

6TH EUROPEAN CONFERENCE

on Industrial Engineering and Operations Management

*Lisbon,
Portugal*

July 17–20, 2023

ORGANIZER



HOST UNIVERSITY

NOVA

NOVA SCHOOL OF
SCIENCE & TECHNOLOGY

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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 6th European Conference on Industrial Engineering and Operations Management in Lisbon, Portugal

To All-Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to the 6th European **International Conference on Industrial Engineering and Operations Management**, July 17-20, 2023. Theme is sustainable data driven supply chain. The event is hosted by NOVA School of Science and Technology – FCT NOVA. Venue is Doubletree by Hilton Lisbon Fontana Park. 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 425 papers/abstracts submitted from 50 countries. After a thorough peer-review process, more than 290 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 sustainable data driven supply chain, continuous improvement of quality and service. The IEOM Society is delighted to have the following keynote speakers at the 6th European Lisbon Conference:

1. João Paulo Ribeiro, Senior Vice President Operations and Supply Chain, Visteon, Portugal
2. Prof. Virgílio Cruz Machado, Professor, Nova School of Science and Technology - FCT NOVA, Universidade NOVA de Lisboa, Portugal
3. Dr. Tomohiko Sakao, Professor of Sustainable Product/Service Systems, Linköping University, Sweden
4. Vânia Gomes, Director of Quality and Food Safety and Assistant to the Production Management, Chocolates Excelsior Company, Lisbon, Portugal
5. António Novais, Managing Director, Palmetal - Armazenagem e Serviços, Thyssenkrupp Group, Palmela, Setúbal, Portugal
6. Dr. Luís Ferreira, Professor at Universidade Coimbra, Portugal
7. Dr. Ana Paula Póvoa, Professor at Técnico / Universidade de Lisboa, Portugal
8. Dr. João Matias, Professor at Universidade de Aveiro, Portugal
9. Luís Bastos, Digital Industries Country Head, Siemens Portugal, Amadora, Lisbon, Portugal
10. Prof. Jürgen H. Lenz, Research Professor, Augsburg Technical University, Nördlingen, Bavaria, Germany
11. Luis Lopes Pereira, Country Director, Medtronic Portugal, Lisboa, Lisbon, Portugal
12. Pedro Monteiro, Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies, Founder and Editor, theleanmag and Associate Founder, projectoSONAR, Porto, Portugal
13. Dave Harry, CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA
14. Dr. Tony Prensa, Chief Executive Officer & Founder, TP Global Business Consulting, LLC, Orlando, Florida, USA
15. Dr. Raphael Grzebietka, Emeritus Professor (Road Safety), Transport and Road Safety (TARS) Research Centre, School of Aviation, University of New South Wales, Sydney, Australia
16. Prof. Patrick Dallasega, Associate Professor, Industrial Engineering and Automation, Faculty of Engineering, Free University of Bozen-Bolzano, Bozen, Bolzano, Italy

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

The IEOM Society would like to express our deep appreciation to our sponsors, university partners, organization partners, 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 IEOM European international conference an overwhelming success.

Our conference host, NOVA School of Science and Technology – FCT NOVA would like to extend a warm welcome to all participants in Lisbon as we are seeing more participants joining onsite.

Our very best wishes to all of you for great learning and memorable experiences in Lisbon.



Prof. Virgílio Cruz Machado
Conference Chair
Professor, Nova School of Science and Technology | FCT NOVA, Universidade NOVA de Lisboa, Caparica, Portugal



Dr. Susana Duarte
Conference Co-Chair
Dept. of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Universidade Nova de Lisboa (FCT NOVA), Caparica, Portugal



Dr. Helena Carvalho
Conference Co-Chair
Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Universidade Nova de Lisboa (FCT NOVA), Caparica, Portugal



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



Prof. Don Reimer
Program Chair
Chief Operating Officer & Director of Student Chapter Development – IEOM Society President, The Small Business Strategy Group, Michigan, USA

Keynote Speakers

Tuesday, July 18, 2023

Conference Welcome and Opening: Tuesday, July 18, 2023, 10:00 – 10:20 am

Host University Leadership and Prof. Don Reimer, Chief Operating Officer, IEOM Society International

Keynote I (Opening Keynote): Tuesday, July 18, 2023, 10:20 – 11:00 am



João Paulo Ribeiro
Senior Vice President, Manufacturing and Supply Chain
Visteon, Portugal

Joao Paulo Ribeiro leads Visteon's global operations activities. Responsible for driving operational excellence across Visteon's 25 facilities in Europe, the Americas and Asia, he leads an organization that employs approximately 7,000 employees and manufactures more than 250,000 end items each day. Ribeiro brings with him more than 25 years of automotive experience including leadership roles of increasing responsibility during a 22-year career with Ford and Visteon. Most recently, he served as vice president of manufacturing operations for Visteon plants in Mexico, Slovakia and Portugal. Prior to this role, Ribeiro served as Visteon's European operations director, and from October 2010 to July 2014, he was the managing director of Visteon in Palmela. Ribeiro has extensive experience developing a global competitive manufacturing footprint – driven by technology and employing lean manufacturing methodologies – to achieve consistent class-leading

performance across all regions. He has a bachelor's degree in industrial engineering from Universidade Nova de Lisboa in Portugal.

Keynote II: Tuesday, July 18, 2023, 11:00 – 11:40 am



Prof. Virgílio Cruz Machado
Professor
Nova School of Science and Technology | FCT NOVA
Universidade NOVA de Lisboa
Caparica, Portugal

Prof. V. Cruz-Machado is currently a Full Professor of industrial engineering at NOVA School of Science and Technology, Universidade Nova de Lisboa, Caparica, Portugal. He coordinates post-graduate programs in industrial engineering, project, and lean management. He teaches operations and production management and has published more than 150 papers in scientific journals and conferences, in addition to having supervised 50 M.Sc. and Ph.D. students. His main scientific activities are directed to the design of lean supply chains.

Dr. Cruz-Machado is the president of UNIDEMI (R&D Unit in Mechanical & Industrial Engineering). He received the Ph.D. degree in computer-integrated manufacturing from Cranfield University, Bedfordshire, U.K.

Keynote III: Tuesday, July 18, 2023, 11:40 am – 12:20 pm



Dr. Tomohik Sakao
Professor of Sustainable Product/Service Systems
Linköping University
Sweden

Keynote Title: Circular economy research and expected global perspectives

Tomohiko Sakao is Professor in Ecodesign and Integrated Product Service Engineering at the Division of Environmental Technology and Management, Department of Management and Engineering, at Linköping University (LiU) in Linköping, Sweden. He stayed at the Institute for Product Development and Machine Elements at the Darmstadt University of Technology in Darmstadt, Germany between 2005 and 2007. Dr. Sakao joined LiU as the Swedish engineers' (Sveriges Ingenjörer) Environmental Professor in 2007 and has been active in both carrying out projects with industry and publishing academic articles. He is one of the scholars that have published the highest number of relevant articles in the area of product/service system (PSS) worldwide, which is clear evidence of his academic influence and expertise in the field. Since 2016, he has been elected as an Associate Member of CIRP (The International Academy for Production Engineering).

After studying at the University of Tokyo, Dr. Sakao worked at Mitsubishi Research Inst., Inc. in Tokyo for 8 full years, where he gained valuable industry experience before beginning his academic career.

Keynote IV: Tuesday, July 18, 2023, 12:20 – 1:00 pm



Vânia Gomes

**Director of Quality and Food Safety and Assistant to the production management
Chocolates Excelsior Company
Lisbon, Portugal**

Vânia Gomes has a BSc. in Food Engineering, an MSc. in Quality Engineering, a postgraduation in Occupational Safety and Health (OSH), and an advanced specialization in Quality and Food Safety. In 2021, she published the scientific paper entitled “Modeling mass transfer in brine salting of chickpea”. She was awarded with the 2nd place in the Ecotrophelia 2017 Award (Portugal Foods) and won the Born From Knowledge Award (ANI- Agência Nacional de Inovação) with the project “Toal Ecobebidas”. She worked as a Quality and Food Safety Technician, and Quality and Industrial Management Advisor responsible for implementing statistical process control, optimization of the process and support in the implementation of normative references (IFS food, HALAL and BIO) in different food companies. Currently, she is the Director of Quality and Food Safety and Assistant to the production management in Chocolates Excelsior company. Her main functions are the management of the entire quality and food safety process, implementation of statistical

process control, process optimization and coordination of production activities together with the production director.

Wednesday, July 19, 2023

Keynote V: Wednesday, July 19, 2023, 10:20 – 11:00 am



António Novais

**Managing Director
Palmetal / Thyssenkrupp Group
Portugal**

António Novais is the Managing Director (CEO/Board Member) of Palmetal S.A, a logistics services company in Portugal, in Palmela (near Lisbon), integrated into thyssenkrupp Group. He is focused on leading teams to provide customers highly customized, flexible and resilient Logistic and Supply Chain Solutions, supported in modern technologies (AI- Machine Learning, Robotic Process Automation, etc.) He was educated in NOVA School of Science and Technology, with a Master Industrial Engineering and Management, with several professional experiences namely IT Consultancy, entrepreneurship, components manufacturing and mainly Logistics focused in the Automotive sector. Developed in the last 30 years several innovative solutions to support business excellence and customer needs. With additional roles as Board Member at thyssenkrupp MPE Lamincer in Spain and Managing Partner at Byteco Lda in Portugal, he enjoys the leisure time with his

4 children and also making woodworking and small repair activities, Bridge card playing, dancing and struggling since many years trying to play a Portuguese Guitar (WIP with a very long lead time)

Keynote VI: Wednesday, July 19, 2023, 11:00 – 11:40 am



Dr. João Matias

**Professor, Universidade de Aveiro
Portugal**

Dr. João Matias holds a B.Sc. in Mechanical Engineering (1994) and a Ph.D. degree in Production Engineering (2003). Is a Full Professor of the Department Dept. of Economics, Management, Industrial Engineering and Tourism (DEGEIT), University of Aveiro, and a member of the GOVCOPP (UA) and Technology Forecasting and Industrial Management (CMAST_UBI) Research Group. His areas of research focus on Industrial Engineering and Management and Sustainability in general and in Sustainable Energy Systems, Management Systems, Quality, and OHS in particular. He is involved in several research projects. Also, he has collaborated as a reviewer with many journals and also international conferences. He is the author or co-author of more than 200 articles published in several international books, journals, and congress proceedings.

Keynote VII: Wednesday, July 19, 2023, 11:40 am – 12:20 pm



Dr. Luís Ferreira

**Professor
Universidade Coimbra
Portugal**

Luis Ferreira completed his PhD in Systems Engineering in 2005/10/04 from the University of Lisbon Instituto Superior Técnico. He has a master's degree in Operational Research and Systems Engineering from the University of Lisbon Instituto Superior Técnico and has a degree in Mechanical Engineering from the University of Coimbra. He is an assistant professor at the University of Coimbra Faculty of Science and Technology. He published 36 articles in journals. Published 16 book section (s) and 1 book (s). He supervised 3 doctoral theses and co-supervised 4. He supervised more than 100 master's theses. Works in Operations Management with an emphasis on topics related to Supply Chain Management.



Keynote VIII: Wednesday, July 19, 2023, 12:20 – 1:00 pm

Dr. Ana Paula Póvoa
Professor, Técnico / Universidade de Lisboa
Portugal

Ana Barbosa-Póvoa is a Full Professor in Operations and Logistics, at the Engineering and Management Department of Instituto Superior Técnico (IST), University of Lisbon. She holds a PhD from the Imperial College of Science Technology and Medicine and her research focus is on developing a comprehensive understanding of complex problems in supply chains and operations management, supported by novel and sound engineering systems models and techniques. Sustainability, resilience, uncertainty and risk in the design and planning of supply chains are among the main research-addressed domains. Ana has created and coordinates the research group in Operations Management and Logistics and Supply Chain Management (OpLog) at the Centre for Management Studies of IST. She has a large experience of in supervision and has been awarded with several research grants. Her research has led to several national and international awards having twice received the honor of being considered the best researcher in Industrial Management at the University of Lisbon. She is an editor of the Computers and Chemical Engineering Journal and a member of several editorial boards, namely the European Journal of Operational Research, the International Journal of Production Economics, TOP, and Operations Research Perspectives. She is one of the Vice Presidents of the EURO, European Association of Operational Research Society; a founder member of the Euro Working Group in Sustainable Supply Chains of the European Association of Operational Research – where she is currently part of the coordination team, and a member of the Euro Working Group on Retail, and the Euro Working Group on Location and Analysis. She serves in the events sub-committee of the EURO WISDOM Forum.

Thursday, July 20, 2023



Keynote IX: Thursday, July 20, 2023, 10:20 – 11:00 am

Luís Bastos
Digital Industries Country Head
Siemens Portugal
Amadora, Lisbon, Portugal

Keynote X: Thursday, July 20, 2023, 11:00 – 11:40 am



Prof. Jürgen H. Lenz
Research Professor, Augsburg Technical University of Applied Science
Nördlingen, Bavaria, Germany

The keynote will outline past and present research work and give an outlook on the exiting new AI applications in manufacturing.

Jürgen Herbert Lenz is Research Professor in the field of AI Systems for Manufacturing at Augsburg Technical University of Applied Science. In addition, he serves as Deputy Scientific Manager at the Technology Transfer Center in Nördlingen, Bavaria. Prior to this position, he was Professor of Smart Manufacturing at the Technical University of Applied Sciences Würzburg-Schweinfurt (THWS). He gained Industry Experience as Solution Architect for implementation and consulting of (I)IoT-Applications working for INNEO Solutions GmbH based in Ellwangen, Germany. Previously he served as Postdoctoral Fellow at West Virginia University in Morgantown, WV, USA (2018-2020) and worked for Fraunhofer at the Institute for Manufacturing Engineering and Automation IPA in Stuttgart. He completed his PhD at the University of Stuttgart, Germany (2018), his Master of Science in Industrial Engineering as a Fulbright Scholar at Oregon State University (2012) and the German Engineering Diploma in Manufacturing Engineering at University of Applied Science in Ulm (2009). His research interests are in the field of Smart Manufacturing include Machine Tool Connectivity, IoT-Platforms, Data Analytics and Machine Learning.

Keynote XI: Thursday, July 20, 2023, 11:40 am – 12:20 pm



Luis Lopes Pereira
Country Director
Medtronic Portugal
Lisboa, Lisbon, Portugal

PhD from the Universidade de Aveiro in Health Technologies, Degree in Business Organization and Management at ISCTE, and attended the course in Economics at Universidade Nova de Lisboa. He started his career linked to the pharmaceutical industry and health technologies in the multinational Abbott where he took over the General Management outside Portugal, namely in Hungary and later in Norway. He returned to Portugal to manage the world leader in medical technologies and devices, the multinational Medtronic. He was President of Apormed, Association of Medical Devices Companies, where he is still currently part of the board,

and was invited to join the board of the prestigious Health Cluster Portugal, the largest health cluster in the country.

He is a researcher at the Universidade de Aveiro and at the Universidade Católica Portuguesa. To bring companies closer to knowledge, he has collaborated in several forums with other Universities such as Instituto Superior Técnico, Lisbon Business School, and Universidade da Beira Interior. He participates in several health-related forums and writes opinion articles on the same subject. He has been investing part of his time in improving the presence of Portuguese industry in the value chain of health technologies, namely the manufacturing industry and software. More specifically, he has indicated and participated in concrete actions that ally industries and companies with high-quality standards and capacity on a world scale to the most promising health technologies in the international market, such as diagnostics, the phenomenon of active ageing, and the most interventional therapies".

Keynote XII (Joint keynote): Thursday, July 20, 2023, 12:20 – 1:00 pm



Pedro Monteiro

Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies

Founder and Editor, theleanmag

Associate Founder, projectoSONAR

Porto, Portugal

Pedro Monteiro holds an Industrial Engineering degree and is an Operations Management graduate with more than 15 years' experience in the manufacturing industry, always in large multinational and multicultural organizations. From process engineering to lean and operational excellence, quality and maintenance, the focus has always been high-level organizational culture and high performing teams at all value chain processes. Currently, Pedro is Operational Excellence Manager for Europe, China and New Zealand for at Allied Motion Technologies, an American company in the motion control solutions market – essentially, electric motors. Founder and editor of theleanmag, the digital magazine about lean, continuous improvement, operational excellence, leadership and organizational culture. Altruistic and with a strong community style,

theleanmag shares the lean knowledge across the globe, in all 6 continents, 57 countries, with more than 700 contacts from 27 different business sectors, and 2500+ followers on LinkedIn. Co-founder of projectoSONAR, a Portuguese benchmarking project for continuous improvement – based in visits and best practices sharing, this project's target is to "share excellence". Invited to public events, Pedro is always willing to share his knowledge, experience, and stories with the audience valuing people's efforts to grow with the mantra "knowledge is everyone's".



Dave Harry

Retired U.S. Naval Aviator

CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA

ASQ certified Six Sigma Black Belt and A PMI certified PMP®

Dave is a retired U.S. Naval aviator and currently CEO of Process Whisperer® Consultants LLC. He teaches LSS classes for TMG Inc of Newport News, VA. Prior to TMG, Dave was a Six Sigma and Productivity Consultant for the University of TN Center for Industrial Services. Dave is a "Kata Geek" and also an ASQ certified Six Sigma Black Belt. He is active in ASQ Sections and the ASQ Lean Enterprise Division Communications. In addition to ASQ, he also holds Black Belt Certification through Rolls-Royce and Northrop Grumman. He is a seasoned ASQ International Team Excellence Awards (ITEA) Judge. Dave is also currently on the Lean Division Board with the Institute of Industrial and Systems Engineers (IISE). Dave is on the Conference Advisory Committee for ASQs 2019 L&SS Conference in Phoenix as well as the Conference

Committee for the IISE Engineering 2018 Lean Six Sigma Conference in Atlanta. A PMI certified PMP®, Dave also holds Lean Bronze Certification (LBC) through the SME/ASQ/AME/Shingo Institute Alliance and he holds three Master's Degrees in management related fields. In addition to ASQ, PMI and IISE, Dave is also a member of the Society of Manufacturing Engineers (SME), the Association of Manufacturing Excellence (AME) and the American Production and Inventory Control Society (APICS). Dave lives in Greeneville TN.



Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ

Chief Executive Officer & Founder

TP Global Business Consulting, LLC

Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Adept at reengineering business processes, change management and IT infrastructure with business visions to drive profitability, efficiency, and growth within the organization. Proficient at ensuring all processes comply with regulatory requirements and IT governance practices. Excellent communicator with strong influencing and problem-solving skills. Strong leadership skills and demonstrated ability to lead team members and external

business contacts including stakeholders such as consultants, partners and vendors. Demonstrated track record of delivery of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000. He also volunteered in many activities to promote project management and participated of writing PMP exam questions workshop in Dallas, Texas in 2002. Dr. Prensa has helped hundreds of project management professionals to get prepared for the PMP exam. Dr. Prensa has taught project management for several universities in the country, including Virginia Technical University, Grand Canyon University, Colorado Technical University, University of Phoenix and currently teaching for Walden University. With more than 25 years of teaching experience in various formats,

face-to-face and virtual. Dr. Prensa has developed techniques to connect with learners and students in the most efficient way. Dr. Prensa has extraordinary people skills, he always puts people first.

Virtual Keynotes

Keynote XIII: Monday, July 17, 2023, 4:00 – 4:40 pm



Raphael Grzebieta, PhD
 Emeritus Professor (Road Safety)
 Transport and Road Safety (TARS) Research Centre, School of Aviation
 University of New South Wales, Sydney, Australia

Raphael graduated in 1979 with BE (Hons) and M.Eng.Sci. degrees from Krakow Technical University, Poland and a PhD in 1991 from Monash University, Australia. He is Emeritus Professor of Road Safety within the Transport and Road Safety (TARS) Research Centre (previously the NSW Injury Risk Management Research Centre (IRMRC)) at the University of New South Wales (UNSW) and was the IRMRC's Acting Director in 2008. He is also an Adjunct Professor in the Department of Forensic Medicine at Monash University and the Victorian Institute of Forensic Medicine located at the Victorian Coroner's Court Precinct. He was previously in the Department of Civil Engineering at Monash University for 25 years, where as an Associate Professor he headed up Civil Engineering's road-safety, crashworthiness and rapid loading research team and supervised numerous PhD, Masters and project students. He has over 350 publications in structural crashworthiness research, accident investigation, road safety, road and infrastructure design, injury causation and biomechanics, ambulance crashworthiness, failure analysis, numerical modelling and experimental testing of a variety of structures subjected to impact and large deformation loads.

He has carried out over 200 in-depth crash investigations and accident reconstruction analyses, providing expert reports and evidence in court. His latest cases have been for the Queensland, NSW, Victorian and New Zealand Coroners, NSW and Victorian Departments of Public Prosecutions, NSW Police, Victoria Police and Victorian WorkCover Authority as well as a number of cases for the CTP Insurers. He has also been involved and worked on major road safety projects (includes one or all of Safer Vehicles, Safer Roads, Safer People and Safe Speeds analyses, advice and reports) for: Cargill Worldwide in Indonesia; Pan Aust Mining in central Laos; BHP-Escondida Mine in Chile; World Bank under contract to the Romanian Ministry of Transport and the Lithuanian Ministry of Transport; United Nations and the Kuwait Ministry for Transport; Australian Defence Department; SafeWork NSW; WorkCover Victoria; VicRoads; Telstra; and a number of private Engineering firms.

The university research team he headed up at Monash carried out numerous crash tests, computer crash modelling and theoretical studies investigating and mitigating injuries in truck under-run, far-side impact, rollover, roadside barrier crashes and industrial work places. Raphael has supervised/co-supervised to completion 17 PhD and 4 MEngSci students in the area of vehicle crashworthiness, injury biomechanics, rapidly loaded and grossly deforming steel structures and truck safety. He developed and taught the most rigorous and theoretically demanding subjects in Civil Engineering for over 20 years. His research work attracted around \$8 million in Australian Research Council and Australian National Health and Medical Research Council grants and a further \$4 million in other university based contract research work.

Raphael was the past President of the Australasian College of Road Safety. He is also a member of a number of road safety, editorial, journal and standards committees. Raphael is regularly interviewed by radio and TV media and has appeared in science programs in relation to road safety and crash testing. He has also chaired a number of international conferences and given numerous invited public lectures and keynote papers. His international network in vehicle and roadside crashworthiness is extensive. Raphael was awarded the 2003 Warren Medal by the Institution of Engineers Australia, as co-author of the papers "Crashworthiness Systems – A Paradigm Shift in Road Safety Design", Parts I & II. He was also awarded in 2007 Fellow of the Australasian College of Road Safety in recognition of his exceptional international service to road safety. He was awarded the 2019 Kenneth Stonnex Award for his 30-year career improving safety for road users by the US National Academies of Sciences, Engineering and Medicine's Transportation Research Board's (TRB's) Roadside Safety Design Committee AFB20, is given to engineers and road safety experts who have dedicated their career to advancing transportation infrastructure and making roads safer. More recently he was awarded the Australian Road Research Board's (ARRB) national transport research organisation's 2019 Lifetime Research Award and Engineers Australia Sir John Holland Civil Engineer of the Year Award for 2020 in recognition of his outstanding achievements in Civil Engineering.

Keynote XIV: Monday, July 17, 2023, 4:40 – 5:20 pm



Prof. Dr.-Ing. Patrick Dallasega
 Associate Professor in Factory Planning and Project Management
 Free University of Bolzano, Italy

Patrick Dallasega is an Associate Professor of Factory Planning and Project Management at the Faculty of Engineering of the Free University of Bolzano (Italy). He studied at the Free University of Bolzano (Italy), at the Polytechnic University of Turin (Italy) and got his PhD at the University of Stuttgart (Germany). From 2005 until 2010, he worked in the fields of plant and factory planning in a local food processing industry. Later, from 2012 until 2015, he was employed as Research Associate at Fraunhofer Italia Research where he managed and executed several research projects for private and public customers. From 2016 until 2022, he has been employed as Assistant Professor at the Free University of Bozen-Bolzano. Since 2022, he has been employed as Associate Professor at the Free University of Bozen-Bolzano. His main research interests are in, supply chain management, Industry 4.0, lean construction, lean manufacturing and production planning and control in MTO and ETO enterprises.

July 18, 2023, Tuesday, 4:00 – 7:00 pm, Ballroom, Doubletree by Hilton Hotel Lisbon

Six Sigma Certification Workshop



Dr. Ahad Ali

Associate Professor and Director of Industrial Engineering Program (BSIE + MSIE)
A. Leon Linton Dept. of Mechanical, Robotics & Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Founder and Executive Director, IEOM Society International

Dr. Ahad Ali is an associate professor, director of industrial engineering program at LTU. 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. He supervised 11 doctorate students in Doctor of Engineering in Manufacturing Systems. Dr. Ali has published journal and conference papers. Dr Ali has done research projects with Chrysler, Ford, DTE Energy, Delphi Automotive System, GE Medical Systems, Harley-Davidson Motor Company, International Truck and Engine Corporation (ITEC), National/Panasonic Electronics, and Rockwell Automation. His research interests include quality, reliability, six sigma, manufacturing, simulation, optimization, scheduling, maintenance, e-manufacturing, and lean. He is a member of ASEE, IEEE, IEOM, INFORMS, and SME.

July 19, 2023, Wednesday, 2:00 – 6:00 pm, Ballroom, Doubletree by Hilton Hotel Lisbon

Workshop on TOYOTA KATA: The Secret Sauce For Toyota Production System



Dave Harry will share the “secret sauce” with university students through an intense hands-on “Kata in the Classroom” workshop. Be prepared to move fast!

Prizes: Each round table will be used for a team. Local university can form teams to complete. Dave is very kind to provide some prizes with gift cards.

DAVE HARRY, a.k.a. “The Process Whisperer®”

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

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

July 20, 2023, Thursday, 2:00 – 4:00 pm, Ballroom, Doubletree by Hilton Hotel Lisbon

Project Management Workshop



Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ

Chief Executive Officer & Founder

TP Global Business Consulting, LLC, Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Demonstrated track record of delivery of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000.

July 20, 2023, Thursday, 4:00 – 6:00 pm, Ballroom, Doubletree by Hilton Hotel Lisbon

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”.

Professor Donald M. Reimer

President, The Small Business Strategy Group, Detroit, Michigan, USA

Adjunct Faculty, Lawrence Tech University, MI, USA and Director, IEOM Chapter Development

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.

Panel Sessions

Data Analytics Panel

Tuesday, July 18, 2023, 8:00 – 9:45 am – Room 2 (Onsite)

Panel Chair: Dr. Hamed Gholami

Panel Speaker I



Dr. Hamed Gholami
Asst. Professor of Industrial Engineering
Mines Saint-Étienne
France

Dr. Hamed Gholami is an Assistant Professor of Industrial Engineering at the Ecole des Mines de Saint-Étienne and a Researcher at the Henri Fayol Institute, France. He received the M.Eng. degree in Industrial Engineering from the Universiti Teknologi Malaysia (UTM), in 2014, and the Ph.D. degree in Mechanical Engineering under the UTM International Doctoral Fellowship scholarship, in 2017. He was honored with the Best Ph.D. Student Award as well as the Alumni and Chancellor Awards at the UTM 59th Convocation Ceremony on Oct. 2017. Since January 2018, he had been a Postdoctoral Fellow with the Department of Manufacturing and Industrial Engineering, School of Mechanical Engineering, UTM. Dr. Gholami has also been acknowledged by the Malaysia Board of Technologists (MBOT) as a Professional Technologist in the field of Manufacturing and Industrial Technology. Given his knowledge and expertise in the field, he has served as a consultant and collaborator on granted projects, a member of editorial boards, a chief guest editor for special issues, and a reviewer in authoritative journals.

Panel Speaker II



Mrs. Jocelyn Ke Yin Lee
Research and Development Engineer
Mines Saint-Étienne
France

Talk Title: Contribution of big data analytics to developing sustainable products

Jocelyn Ke Yin Lee is a Research and Development Engineer at Département GMI (Génie Mathématique et Industriel), LIMOS Lab, Henri Fayol Institute, Ecole des Mines de Saint-Étienne, France. She obtained her Master of Philosophy degree in Mechanical Engineering from the Universiti Teknologi Malaysia (UTM), in 2022. She gained her industrial experience as a supplier quality engineer for Dyson's contract manufacturer and later as a project quality engineer for a publicly listed Spanish robotic pool cleaner company. She is a Certified Quality Auditor (CQE) under the American Society for Quality (ASQ). She has expertise in quality management systems, supplier management, quality audits, reliability and maintainability, measurement system analysis, continuous improvement, statistical process control, risk management, operations planning, and optimization. Her research interests include quality engineering, sustainable production, lean management, agile manufacturing, and Industry 4.0 technologies. She has published related articles in international refereed journals, such as IEEE Access, Sustainability, and the Journal of Cleaner Production. She also contributed to the book entitled "Sustainable Manufacturing in Industry 4.0" published by Springer in 2023.

Panel Speaker III



Dr. Mohadese Basirati
Assistant Professor of Industrial Engineering
Mines Saint-Étienne
France

Talk Title: Application of Multi-Criteria Decision-Making Methods for Human Resource Task Scheduling in Multi-Sided Platforms

Mohadese BASIRATI is an Assistant Professor of Industrial Engineering and Computer Science at the École des Mines de Saint-Étienne (EMSE) and a Researcher at the Henri Fayol Institute (UMR CNRS 6158 LIMOS: Laboratoire d'Informatique, de Modélisation et d'Optimisation des Systèmes), in France. Dr. Basirati received her M.Sc. degree in Industrial Engineering (Systems Optimization) from Sharif University of Technology on September 2017, and her Ph.D. degree in Computer Science at Institut Mines-Télécom (IMT) Atlantique Bretagne-Pays de la Loire (ex Télécom Bretagne) department LUSSI in December 2022. Her research interests are in the areas of multi-objective optimization and operations research, machine learning, multi-criteria decision-making, stochastic programming and robust optimization approaches, supply chain management, negotiation-based algorithms, and simulation. Moreover, she has over six years of work experience in different parts of the food and healthcare industries: international commercial supervisor in foreign purchasing, supply chain manager of distribution networks, health, safety, and environment consultant, R&D manager, and planning manager.

Panel Speaker IV

Women in Industry and Academia (WIIA) Panel

Panel Speaker I



Dr. Susana Duarte
Assistant Professor
Department of Mechanical and Industrial Engineering
NOVA School of Science and Technology
Universidade NOVA de Lisboa
Portugal

Susana Duarte holds a PhD in Industrial Engineering. She is an Assistant Professor in the Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Universidade NOVA de Lisboa, Portugal. She lectures several courses on topics related to industrial engineering including production management, industrial strategy and management, Industrial engineering, logistics, and lean six sigma, among others. She is a research member of the Research and Development Unit for Mechanical and Industrial Engineering (UNIDEMI) where she develops their investigation in lean thinking, green management, their integration on supply chain management, business sustainability, performance measurement systems, and Industry 4.0. She made part of the research team of the project entitled “Lean, Agile, Resilient and Green Supply Chain Management” and she has published scientific papers in international journals and conference proceedings. She was awarded the Outstanding Paper Award (Awards for Excellence) from Emerald Group Publishing, three paper awards from International Conferences, and a Teaching Excellence Award from IEOM society. She is a member of the board of the Portuguese Institute of Industrial Engineering.

Panel Speaker II



Cristina Barros
CEO
SINMETRO Lda
Leiria, Portugal

Cristina Barros is a co-founder partner and CEO of SINMETRO, which, since 2002, works with industry and services in strategic management, productive innovation, digitalization, R&D, software development and training. Since 1998 she has been dedicated to studying industrial processes and evaluate how to optimize them, designing comprehensive re-engineering and digitalization strategies, to increase quality and efficiency. From 2000 to 2023 she was a specialist lecturer in Industrial Engineering and Management at the Polytechnic of Leiria, where she coordinated the post-Graduation in 6 Sigma at Black Belt level, among others. From 2011 to 2018 she was the President of the Dom Dinis Ideas and Businesses Incubator in Leiria. In 2016 she was invited to join the national initiative industry 4.0 and from 2017 and 2020 she coordinated the “Axis 3: Qualification” of the national initiative INCoDe.2030 to stimulate digital competences. She is a certified Six Sigma Black Belt since 2007 and has coordinated numerous projects in this area. In 1998 she concluded a degree in Chemical Engineering, and in 2005 her Master in Instrumentation, Industrial Maintenance and Quality. In 2009, she successfully completed the Advanced Management Program for Executives at Universidade Católica Portuguesa and, in 2021, the MITxPro Course: Data Science and Big Data Analytics: Making Data-Driven Decisions.

Panel Speaker III



Dr. Eng. Carina Pimentel
An Industrial Engineering Assistant Professor
Department of Production and Systems
University of Minho
Portugal

Carina Pimentel is an Industrial Engineering Assistant Professor at the Department of Production and Systems at the University of Minho. She is a researcher at the Algoritmi Research Unit (<https://algoritmi.uminho.pt/>) and of the Decision Support Systems group of the Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP). Over the last years she has been involved in several funded research projects, such as the following ones: Augmented Humanity (Projeto Mobilizador n.º 46103), SOLFI – Sistema de Otimização para a Logística Urbana com Fluxos Integrados de Mercadorias e Passageiros (POCI-01-0247-FEDER-039870), DRIVIT_UP – DRIVing forces of urban Transformation: assessing pUBLIC Policies (02/SAICT/2017), SearchCol – Meta-heuristic Search by Column generation (PTDC/EIA-EIA/100645/2008) and Application of Branch-and-Price Algorithms in Scheduling (POSC/SRI/48873/2002).

Her main research interests are related with the Operations Management, Logistics, Supply Chain Management and Operational Research areas, including lean production, production planning and scheduling, production scheduling in human–robot collaboration, urban logistics, maritime logistics, supply chain sustainability, and supply chain performance measurement. Recently she has been also researching the links between Industry 4.0 and the above mentioned areas. She has successfully supervised approximately sixty master’s dissertations during her professional career.

She mainly publishes the results of her research work in international scientific journals in the Operations Management, Supply Chain Management/Logistics and Operations Research areas, in edited books and in conference proceedings, having more than 50 published papers. Moreover, she has an active participation in the Industrial Engineering professional and research community, being a member of several professional and scientific associations. She is also a member of the drive group of the European Professors of Industrial Engineering and Management. She has also worked in a textile industry having had responsibilities in the areas of Production Planning, Processes Improvement and Health and Safety.

Panel Speaker IV



Dr. Maria Henriqueta Almeida

Service Delivery Manager and Researcher, UNIDEMI – Unidade de Investigação e Desenvolvimento em Engenharia Mecânica e Industrial

Maria Henriqueta Almeida is a service delivery manager with over 20 years of experience. Her background is in Information Technology & Finance in different industries, managing teams across Portugal, EU, UK and USA. Over the last years, she has been serving at a public sector organisation providing shared financial services to hundreds of public entities. As an Agile, Lean, Design Thinking and Business Process expert, her focus is to create and empower top and high-performance teams, helping organisations to sustain their continuous improvement path. She holds a Ph.D in Industrial Engineering from NOVA School of Science and Technology, and she is a researcher at the Research and Development Unit for Mechanical and Industrial Engineering (UNIDEMI). Her main research interests include lean services, knowledge management, customer services, continuous improvement sustainability, artificial intelligence applied to finance and organisational culture. Being a service manager,

researcher, teacher and trainer, she is passionate about bringing Academia and Industry closer. She has supported and co-supervised several master's students from different universities, while providing them access to the gamba.

Global Supply Chain and Logistics Panel

July 18, 2023, 4:00 – 5:45 pm – Room 2 (Onsite)

Panel Chair: António Pita and Panel Co-Chair: Dr. Helena Carvalho

Panel Speaker I



António Pita

Transportation and Supply Chain Manager and Consultant
Portugal

António Pita is a logistics passionate with nearly 15 years of experience in transportation, achieved from the combination of working for two of the world's largest carriers and joining the shipper side to apply his expertise to improve and develop the operational capabilities of such companies. His degree in Industrial Management and Engineering from ISCTE – University Institute of Lisbon was the opener for the logistics world. Starting at FedEx and later at DPD Portugal, he had pick-up and delivery operations under his responsibility, as well as international projects related with processes quality and optimization of the DPD International parcels network. Already in Germany, António continued to manage projects related with the optimization and forecast of the DPD Group linehaul network. Using the best practices from each DPD country, he supported the design of software applications to drive and manage daily operations across different European countries. At the shippers side, António could

understand the supply chain from a different angle. His knowledge about transportation processes allowed him to lead tenders across Europe and USA, while using those outputs to a better supply chain optimization. Most recently António have been working on bringing the best practices of parcel visibility and tracking to the ocean freight industry, since he strongly believes that ocean freight users also deserve to know exactly where their goods are and when will they arrive, in order to have a smooth supply chain.

Panel Speaker II



Dr. Helena Carvalho

Associate Professor, Department of Mechanical and Industrial Engineering
NOVA School of Science and Technology
NOVA University Lisbon, Caparica, PORTUGA

Helena Carvalho is an Associate Professor in the Department of Mechanical and Industrial Engineering at the NOVA School of Science and Technology, Portugal. She is a physics engineer and holds an MSc in Industrial Engineering, both degrees from Universidade Nova de Lisboa. At the end of 2012, she completed her PhD in Industrial Engineering at the Universidade Nova de Lisboa, where she undertook research in supply chain resilience. She is the coordinator of the Master in Maritime Logistics. She lectures several courses on topics related to industrial engineering, including logistics, quantitative methods, decision models, economic engineering, production planning and control, among others. She is the vice-director of UNIDEMI (R&D Unit in Mechanical and Industrial Engineering). Her research activities include participation as a researcher and as coordinator of the NOVA

team in several projects, including "M4ML – Mobility for Maritime Logistics", MARLEM – maritime Logistics engineering and management" and "KM3D – Knowledge Management in Additive Manufacturing: Designing New Business Models". She has a special research interest in the supply chain management topic, namely how to make supply chains and respective organisations more sustainable by deploying lean and green practices and at the same time assuring system resilience. As an extension of these research topics, currently, she is developing research on eco-efficiency and eco-innovation subjects as a means to achieve more sustainable business ecosystems. She had been developing her research work using analytical tools like discrete-event simulation models, but also by means of the exploitation of qualitative methods such as case studies, Delphi methodology and interpretative structural modelling.

Panel Speaker III



Dr. Vitor R. Caldeirinha

Researcher, ESCE, Instituto Polytechnic of Setúbal, Portugal
ENIDH, Oeiras, Portugal

Vitor Manuel dos Ramos Caldeirinha has a Degree in Economics from ISEG, a postgraduate degree in Port Management, Master MBA/Management from ISEG and PhD in Management from the University of Évora. He was Director of Port Business and Logistics at the Port Authority of Setúbal (where he joined in 1994) and Commercial Director at the Lisbon Port Authority (2003 to 2005). He was President of the Port Authority of Setúbal, of the Association of Ports of Portugal and of ADFERSIT. He is a professor and trainer of port strategy/management and logistics, author of books on port management, co-author of several scientific studies published in top international journals and international consultant/trainer in the area of port management, logistics and transport.

Panel Speaker IV



Tarik SAIKOUK Ph.D, HDR (Habil)
 Associate Professor of Supply Chain Management
 Excelia Business School in La Rochelle
 Director of research dissertations in the BBA International program
 La Rochelle, France

Dr. Tarik Saikouk holds a degree in Industrial Systems Engineering from the University of Technology of Troyes, France (2009), a Ph.D. in Supply Chain Management from the University of Grenoble, France (2013), and successfully defended his HDR at the University of Grenoble Alpes in 2023. He currently serves as an Associate Professor of Supply Chain Management at Excelia Business School in La Rochelle, and the director of research dissertations in the BBA International program. Starting from September 2023, he will also assume the role Chair of the Supply Chain Department. Additionally, he serves as an Associate Editor for the French Journal of Industrial Management. With an academic background in both engineering and management, Dr. Saikouk has cultivated a unique research perspective that centers on the social complexity of supply chain management. His research interests encompass social capital mobilization, social dynamics, and Lean management practices within the supply chain system. He has contributed to various peer-reviewed journals, including European Management Review, Production Planning & Control, International Journal of Logistics Management, Expert Systems With Applications, and Technological Forecasting and Social Change.

Panel Speaker V



Inês A. Ferreira
 Recent Graduate – Doctoral Program of Industrial Engineering
 NOVA School of Science and Technology
 Invited Assistant Professor at NOVA School of Science and Technology
 Invited Assistant Professor at ISEG (Lisbon School of Economics & Management), Portugal

Inês A. Ferreira just recently defended her PhD Thesis on the topics of Additive Symbiotic Networks and the adoption of blockchain technology as a tool to promote those networks. This work was realized within the Doctoral Program of Industrial Engineering at NOVA School of Science and Technology. She started her PhD in 2019, after she delivered her Master's Thesis in Industrial and Management Engineering, focusing on the topic of Industrial Symbiosis Network in the Portuguese Pulp, Paper and Cardboard Industry. From 2019 until 2020 she has been invited as Invited Assistant Professor in Stock's Management classes at NOVA School of Science and Technology. Moreover, she is currently working as an Invited Assistant Professor at ISEG (Lisbon School of Economics & Management), in the classes of Production and Operation Management. Her research interests mainly concern sustainability, circular economy, industrial symbiosis networks and supply chain management

Operations Excellence Panel

Wednesday, July 19, 2023, 8:00 – 9:45 am – Room 2 (Onsite)

Panel Chair: Amanda Breeden

Panel Speaker I



Amanda Breeden, MA, MA
 Board Member and Director of Communications, Colorado Lean Network
 Sr. Director, Office of Research, Denver Health & Hospital Authority

Amanda Breeden is a healthcare leader and lean practitioner at Denver Health and Hospital Authority, a learning health system that expeditiously puts evidence into clinical practice. Amanda oversees all clinical research, sponsored programs, and research operations at Denver Health, an institution that provides medical care to primarily underserved community members. She is committed to bring lean management to research operations globally and shouts about it often on LinkedIn. She is experienced utilizing a lean management system in the oversight and compliance of a \$450M+ portfolio of active research, grants, and contracts. As a fully functional practitioner in lean management systems with a specialization in administrative and operational excellence, she spends her days facilitating and engaging in system-wide process improvements. Amanda serves as a board member of the Colorado Lean Network. She is an active member of many research administration and health care networks, societies, and associations where she presents on the intersection of lean and research administration in clinical research, site-based clinical trial management, and managing virtual teams. Amanda received dual M.A. degrees from the University of Northern Iowa in Human Service Administration and Women's and Gender studies.

Panel Speaker II



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

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

Panel Speaker III



Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ

Chief Executive Officer & Founder

TP Global Business Consulting, LLC, Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Adept at reengineering business processes, change management and IT infrastructure with business visions to drive profitability, efficiency, and growth within the organization. Proficient at ensuring all processes comply with regulatory requirements and IT governance practices. Excellent communicator with strong influencing and problem-solving skills. Strong leadership skills and demonstrated ability to lead team members and external business contacts including stakeholders such as consultants, partners and vendors. Demonstrated track record of delivery

of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000. He also volunteered in many activities to promote project management and participated of writing PMP exam questions workshop in Dallas, Texas in 2002. Dr. Prensa has helped hundreds of project management professionals to get prepared for the PMP exam. Dr. Prensa has taught project management for several universities in the country, including Virginia Technical University, Grand Canyon University, Colorado Technical University, University of Phoenix and currently teaching for Walden University. With more than 25 years of teaching experience in various formats, face-to-face and virtual. Dr. Prensa has developed techniques to connect with learners and students in the most efficient way. Dr. Prensa has extraordinary people skills, he always puts people first.

Panel Speaker IV



Luís Gonçalves, MBA

Head of OpEx at Recipharm (Site Lisbon)

Human Change Management Expert

Lisbon, Portugal

Luís Gonçalves is an experienced professional within various business areas such as aircraft, automotive and household appliance industry. He holds a master's degree in Materials Engineering at Universidade Nova de Lisboa, Faculdade Ciências e Tecnologia, complemented with an Executive MBA earned from Católica Lisbon Business and Economics & Nova School of Business and Economics. He worked in and with different leading multinationals. Specialized in operating leadership and continuous process improvements. Uses LEAN methodology to assure that suppliers, materials, manufacturing, and labor all work together in an effective manner to reduce production cost. Gives privilege to the development of people and teams in the pursuit of results. Concerned that all his team participates, collaborates, and gives their best to bring success to the organization. Luís is currently the Head of OpEx at Recipharm (Site Lisbon) which is a leading global pharmaceutical Contract Development and Manufacturing Organisation (CDMO). Luís as an highly qualified in the Human Change Management Body of Knowledge, approaches the human factor in an integral part of the strategy for LEAN implementation.

Panel Speaker V



Eduardo Sousa

Operations Excellence

Galp, Lisbon, Portugal

Eduardo Sousa is an experienced operation professional with expertise in driving operational excellence across diverse industries such as automotive, aerospace, energy, and ceramics. He has a strong background in business transformation and performance improvement, having successfully implemented operational enhancements at various organizational stages. Eduardo is experienced in collaborating with multidisciplinary teams and optimizing global supply chain operations in areas such as production, maintenance, planning, materials management, and logistics systems. He holds a Lean Sigma Black Belt certification, along with a Master's degree and Post-Graduation in Supply Chain Management from Birmingham City University (UK), a Post-Graduation in Management Consultancy, from the University of Salford, Manchester (UK), and a BA (Hons) in Business & Negotiated Studies

with a specialization in Operations Management from the University of Bolton in the UK. Currently, Eduardo contributes his expertise to the Operations Excellence team at Galp, where he continues to drive impactful operational improvements.

Panel Speaker VI



Ricardo Ferreira de Mascarenhas

Founder & General Manager

RM Consulting – À Frente do Futuro

Aveiro, Portugal

Ricardo Ferreira de Mascarenhas is passionate about what he does and strongly committed to making the Portuguese business environment more robust and competitive. Currently General Manager at RMCONSULTING, of which he is the founder, and a certified consultant by the Management Consulting Institute (Cambridge, Massachusetts), he has over 18 years of professional experience during which he has worked with family owned SMEs and multinational companies, both Portuguese and foreign. He is the creator and founder of LEANTODAY® and CORPORATE WELLBEING CONFERENCE® and of LEANTODAY ACADEMY and Associate Partner in projectSONAR.

As a trainer he collaborates with several institutions, (EPA/AEVA, VEBS, ISQ, ABIMOTA, ...) in topics related to operational excellence and Lean strategies. He signs the opinion column RMCONSULTING in Diário de Aveiro and Vida Económica, is the author of the book "Lean Management in Services" and brought to Portugal the books "Understanding Lean" (This is Lean) by Niklas Modig and Pär Åhlström and "Learning to Lead, Leading to LEARN" by Katie Anderson, in addition to participation in other works and articles. In 2020-2021, in

addition to his professional activity, he was a Member of the Health Parliament Portugal, 2nd edition, where he was also Coordinator of the Equity and Sustainability Commission. He has a degree in mechanical engineering from the University of Aveiro with subsequent post-graduate studies in management by IPAM and a master's degree in mechanical engineering. He has been focusing on continuous training, having also a mini-MBA in Lean Services Management, a post-graduation as Lean Practitioner by the Universitat Politècnica de Catalunya (Barcelona Tech), an advanced training course in industrial engineering and management by the University of Aveiro and is currently a doctoral student in operations management at the same institution. the same institution.

Sustainability Panel

Wednesday, July 19, 2023, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair



Professor Linda Zhang

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

Linda L. ZHANG is currently a Professor of Operations Management in Department of Operations Management at IESEG School of Management (LEM-CNRS 9221), Lille-Paris, France. She obtained her BEng and Ph.D. degrees in Industrial Engineering in 1998 and 2007, respectively. Her research interests include sustainable supply chain and operations management, product and production configuration, financial management, etc. On these areas, she has published many articles in international refereed journals, such as Decision Support Systems, IIE Transactions, IEEE Transactions on Engineering Management, European Journal of Operations Research, International Journal of Production Economics, International Journal of Production Research, etc. She serves as an associate editor for several peer-reviewed international journals, such as Decision Analytics Journal, Supply Chain Analytics, and Journal of Engineering Design. Professor Zhang has obtained many paper awards from different peer-reviewed journals and international conferences. She has been elected as a Fellow of the IEOM Society International.



Panel Speaker I

Dr. Petri Helo

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

Talk Title: Visibility of GHG emissions in supply chains

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

Panel Speaker II



Dr. Charles Mbohwa

Stade, Lower Saxony, Germany
Professor Extraordinaire at the Tshwane University of Technology in South Africa
Past Professor and Executive Dean, University of Johannesburg, South Africa
Past Pro-Vice Chancellor Strategic Partnerships and Industrialisation, University of Zimbabwe

Professor Charles Mbohwa is currently based in Germany and is a Professor Extraordinaire at the Tshwane University of Technology in South Africa. He is a Senior Research Associate at the University of Johannesburg; He was the University of Zimbabwe Pro-Vice Chancellor responsible for Strategic Partnerships and Industrialisation until 30th June 2022. Before that he was a Professor of sustainability engineering in the Faculty of Engineering and the Built Environment at the University of Johannesburg where he worked from 2007 to 2019. He was a lecturer and senior lecturer at the University of Zimbabwe between 1993 and 2007 and a mechanical engineer in the National Railways of Zimbabwe from 1986 to 1991. He was Chairman and Head of Department of Mechanical Engineering at the University of Zimbabwe from 1994 to 1997; Vice-Dean of Postgraduate Studies Research and Innovation in the Faculty of Engineering and the Built Environment at the University of Johannesburg from July 2014 to June 2017 and Acting Executive Dean in the Faculty of Engineering and the Built Environment from November 2017 to July 2018. He has published very widely. He holds a BSc Honours in Mechanical Engineering from the University of Zimbabwe 1986; Masters of Science in Operations Management and Manufacturing Systems from University of Nottingham 1992; and a Doctor of Engineering from the Tokyo Metropolitan Institute of Technology 2004. He researches on sustainability engineering and energy systems.

Panel Speaker III



Prof. Laoucine Kerbache

Chair of Division of Engineering Management and Decision Sciences
College of Science and Engineering
Hamad Bin Khalifa University
Education City, Qatar Foundation, Doha, Qatar

Title: Enhancing Qatar Rail with Electric First-Last Mile Transport Network

Dr. Laoucine Kerbache is currently serving as Full Professor and a Founding Faculty Member of the Logistics and Supply Chain Management Program within the Engineering Management and Decision Sciences Division at HBKU. Further, he has been Full Professor at HEC Paris for the last 25 years serving as Professor of Operations and Supply Chain Management as well as holding various academic positions such as Director of Specialized Master in Logistics and Global Sourcing (2004-2007), Director the HEC Paris PhD Program (2007-2012), Dean and CEO of HEC Paris in Qatar (2013-2016).

For over thirty-five years of academic, research, and consulting activities, he has been very active in his areas of expertise, focusing on modeling and optimization in Operations and Supply Chain Management. He has published over one hundred twenty papers in international journals. He holds a PhD, MSc, and BSc in Industrial Engineering and Operations Research from the Mechanical and Industrial Engineering Department, University of Massachusetts, Amherst, MA., USA.

Panel Speaker IV



Dr. Adel Elomri
 Division of Engineering Management and Decision Sciences
 College of Science and Engineering
 Hamad Bin Khalifa University
 Education City, Qatar Foundation, Doha, Qatar

Title: Where has supply chain carbon footprinting research gone?

Dr. Adel Elomri serves as an Assistant Professor in the Division of Engineering Management and Decision Sciences at the College of Science and Engineering, Hamad Bin Khalifa University, Qatar. He earned his Ph.D. and MS degrees in Supply Chain and Operations Management from CentraleSupélec, Paris, France, and a BS degree in Industrial Engineering from the National Engineering School of Tunisia. Dr. Elomri's research interests intersect operations research, operations economics, and engineering management. His work on supply chain carbon

footprinting has contributed to introducing novel methods for modeling carbon emissions and examining innovative strategies to reduce the environmental impact of supply chains. Currently, Dr. Elomri is undertaking projects in diverse areas such as healthcare operations management, sustainable supply chain management, and smart logistics.

Global Engineering Education Panel

Wednesday, July 19, 2023, 4:00 – 5:45 pm – Room 2 (Onsite)

Panel Chair



Assoc. Prof. Jiri Tupa, PhD.
 Vice-dean for Strategy and Development
 COO of Research and Innovation center for Electrical Engineering
 Faculty of Electrical Engineering | RICE
 University of West Bohemia, Pilsen, Czech Republic

Jiri Tupa received his MSc (2002) and PhD (2006) in Electrical Engineering from Faculty of Electrical Engineering, University of West Bohemia in Pilsen in Czech Republic. He is a Vice-dean of faculty and Senior Lecturer at Department of Technologies and Measurement. Dr. Tupa is member of executive management at Regional Innovation Centre for Electrical Engineering of the Faculty of Electrical Engineering at the University of West Bohemia in Pilsen. He is also PhD supervisor, reviewer of journal and conference publications and co-organizer of conferences. His research interests include Business Process Management, Quality Management, Risk and Performance Management in Electrical Engineering Industry, Industrial Engineering, Electronics Manufacturing and Diagnostics, Financial and Project Management, Copyrights and patents law, information law and transfer of IPR. Jiri Tupa is responsible for several international research and development projects with industrial and University

partners. The project RiMaCon – Risk Management Software System for SMEs in the Construction Industry is one of the important international projects. This project has received funding from the European Union's Seventh Framework Program for research; technological development and demonstration (2013-2017). The RiMaCon project's main goal is to implement a collaborative effort to promote the sharing of knowledge and competencies in a long-term strategic research partnership around the development, testing and validation of a cost effective and user-friendly risk management system for SMEs in the construction sector.

Panel Speaker I



Professor Min Xie
 Chair Professor of Industrial Engineering, Department of Systems Engineering
 City University of Hong Kong, Hong Kong SAR, China

Presentation title: International education through joint/double degree programs and research collaboration

Min Xie has been a Chair Professor at City University of Hong Kong since 2011. Prior to that, he was with National University of Singapore for 20 years, where he joined as one of the first recipient of LKY research fellow. He received his undergraduate and postgraduate education in Sweden. He has carried out extensive research in quality management, reliability engineering, and industrial statistics, and published over 300 journal papers and 10 books. He has advised 60 PhD students, now working in industry or academia in different continents. Prof Xie currently

chairs IEEE Technology and Engineering Management Society's Fellow Evaluation Committee. He has been an elected fellow to IEEE since 2005 and since 2022 to European Academy of Sciences and Arts.

Panel Speaker II



Rita Falcão de Berredo
 Director for Education and International Development
 NOVA University Lisbon
 Portugal

Director for Education and International Development of NOVA University Lisbon. She has been working in the area of International Development since May 2018, with responsibilities in the implementation of the Strategy for the International Development of NOVA. Currently, she is the Institutional Project Coordinator for the implementation of EUTOPIA at NOVA, the European University Alliance that NOVA belongs to. She is also responsible for the implementation of NOVA Cairo, the International Branch Campus of NOVA in Egypt. From 2014 until 2018, she was the Head of the Research Support Unit of NOVA, with responsibilities for Research Management, Funding and Research Talent Development. From 2001 until 2013, was Head of the e-learning office of Universidade do Porto, with responsibilities for the development and implementation of the institutional strategy for Learning Technologies. She has been an invited Professor in the field of e-learning and Digital Education since 2004. She has a PhD in Digital Media (2013) in the field of Evaluation of the application of e-learning methodologies to the education of engineering. She has an MSc in Multimedia Technology in the field of e-learning and reusable learning objects in Engineering Education.

Panel Speaker III



Dr. Bill Williams
 Senior Associate Editor at the Journal of Engineering Education
 Associate Editor at the European Journal of Engineering Education
 Adjunct Senior Research Fellow, TU Dublin
 Researcher, CEGIST | Centre for Management Studies of Instituto Superior Técnico, Lisbon,
 Portugal Moita, Setúbal, Portugal

Bill Williams originally trained as a chemist at the National University of Ireland and went on to work in education in Ireland, UK, Eritrea, Kenya, Mozambique and Portugal and to run international distance courses for the International Labour Organization in various African countries. He taught technical communication and industrial management at the Barreiro School of Technology of Setúbal Polytechnic Institute in Portugal, until his retirement in 2017. He has been an invited lecturer at IST, University of Lisbon and the Technical University of Madrid. He serves as an associate editor of the European Journal of Engineering Education (EJEE) published by the European Society for Engineering Education (SEFI) and senior associate editor of the Journal of Engineering Education (JEE) published by the American Society for Engineering Education (ASEE). He was lead editor of "Engineering Practice in a Global Context, Understanding the Technical and the Social" an edited volume published by Routledge in 2014. He is Professor Jubilado of Setúbal Polytechnic Institute and Adjunct Senior Research Fellow at TUDublin, Ireland. Bill Williams is a member of the Governing Board of the European Working Group on Engineering Education Research of SEFI, was elected to the Governing Board of REEN (Research in Engineering Education Network) in 2014 to represent the European region of this 500-member network and he was voted Chair of the Board for 2016-2017. He is a founder member of the Portuguese Society for Engineering Education (SPEE) and is a member of the Review Committee for the Taxonomy of the Field of Engineering Education Research curated by the University of Michigan.

Industry 4.0 Panel

Thursday, July 20, 2023, 8:00 – 9:45 am – Room 2 (Onsite)

Panel Chair



Dr. Matteo Mario Savino
 Professor of Industrial Operations and Industrial Management
 University of Sannio
 Benevento, Italy

Matteo Mario Savino is a Professor of Industrial Operations and Industrial Management at the University of Sannio. He received a PhD in Industrial plants in 1999 at the University Federico II of Naples, Department of Design and Industrial Engineering. Among his research interests there are Project Management, Risk Assessment, Quality aspects related to industrial production. He has managed several National and EU Funded research and educational projects. Since 2008 he has been a Delegate of the Rector for Quality Assurance and is the President of the University Quality Centre. He is the author of more than 50 Scientific Publications and participates in International Journals and International Peer Review proceedings. Dr. Savino is also the Quality Manager for the University Quality Centre. This centre is in charge of the quality assurance for the research and didactic activities of the whole university. He is involved in several EU funded projects on quality, supply chain and higher education. His research interests are mainly focused on industrial operations, quality and supply chain management.

Panel Speaker I



Diessica de Oliveira-Dias
 Department of Business Organization, Marketing and Sociology
 University of Jaen
 Jaen, Spain

Diéssica de Oliveira-Dias obtained her Degree in Business Management from the Federal University of Santa Maria, Brazil. She received her Master's degree in Transportation and Logistics from the University of Jaén, Spain, in 2017 and a Master's degree in Business Management from the Federal University of Santa Maria in 2020. She has recently completed her Ph.D. in Business Sciences with a focus on Operations Management in cooperation with the research group "Advances in Operations Management and Technology Management" of the University of Jaén. Her main research interests focus on supply chain management and the role of Industry 4.0 related technologies. She has published in the International Journal of Production Economics, International Journal of

Logistics Management, Computers and Industrial Engineering, Management Decision, and Annals of Operations Research, among other journals. She has been a visiting researcher at the University of Melbourne (Australia) and NOVA University Lisbon (Portugal), and currently, she is working as a researcher and lecturer in the Department of Business Organization, Marketing and Sociology of the University of Jaén.

Panel Speaker II



Dr. Vítor Alcácer
Assistant Professor of Industrial Engineering and Technologies
Escola Superior de Tecnologia de Setúbal
Instituto Politécnico de Setúbal
Portugal

Vítor Alcácer holds a Ph.D. in Industrial Engineering in the Department of Mechanical and Industrial Engineering at NOVA School of Science and Technology, Universidade NOVA de Lisboa, Portugal. His research focuses on Industry 4.0 subjects and its applications on manufacturing industries. He is an Assistant Professor of Industrial Engineering and Technologies at Escola Superior de Tecnologia de Setúbal, Instituto Politécnico de Setúbal, Portugal, in the Industrial Organization and Technology section of the Department of Mechanical Engineering.

Panel Speaker III

Diversity and Inclusion Panel sponsored by Ford Motor Company

Thursday, July 20, 2023, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair



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

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. 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 was a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He was faculty Advisor of the Collegiate Entrepreneurs' Organization. Mr. Reimer served 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



Stela Suils Cuesta Shihab
Diversity, Inclusion & Belonging Consultant
Founder & DEI Practitioner, Diversitude
Associate Director of Diversity and Inclusion, CollectiveUP
Lisbon, Portugal

I am the founder and DEI Practitioner of Diversitude, a Diversity, Equity, Inclusion & Belonging Consultancy. We provide customised solutions for companies and institutions, such as Gender Equality Plans (GEPs), DEI strategies, Unconscious Bias and Allyship at Work Trainings and Masterclasses. My goal is to build more diverse and inclusive organisations, where diversity, equity, and inclusion are ingrained in the company's culture—an attitude. We work with clients like the Web Summit, the European Maritime Safety Agency, Volkswagen Digital Solutions, Toptal, Cloudflare, Valispace, Ironhack or ADQ. In 2021, I was listed as "People to Follow on LinkedIn about Diversity and Inclusion". As a pro bono, I co-lead Lean In Portugal, an NGO that supports women achieve their ambitions. I am a trained Psychologist and a PhD Candidate in Gender Studies. I focus on retention, attrition, and promotion of women working in ICT. After 2 years consulting ThreeFold, a blockchain startup, I launched an agency to help tech companies recruit diverse talent, which pivoted to connect global talent with Dubai and Abu Dhabi-based companies. I thought attracting more diversity to tech was the place to get started to achieve equality. Then I realized how much talent is being lost: 56% of women in IT leave their work within the first 5 years! I decided to change my strategy and focus instead on retaining and nurturing talent.

I'm a seasoned and passionate speaker. I facilitated a few Masterclasses at the Web Summit in 2019 and 2022, Collision in 2020, as well as various international conferences and private events with private and public organisations. Furthermore, I'm also passionate about building an inclusive Metaverse. In love with NFTs, minted World of Women #1027 and started breeding CryptoKitties in 2016. I love hiking and having fun with my son,

husband, and two doggies. In my free time, I catch some waves with my bodyboard on the coast of Portugal. Real Madrid fan. Peanut butter enthusiast.

Panel Speaker II

**Manon Rosenboom Alves**

Mentor & Coach EMCC

Lisboa, Lisbon, Portugal

Manon Rosenboom Alves - Conscious Leadership, Communication & DEI Coach

Manon has 20+ years of leadership, facilitation and coaching experience in all kinds of industries like technology, food & beverage and education. Based on her passion for people development and mindful approaches, she empowers individuals, groups and teams to achieve their highest potential and fulfill their purpose in an authentic and inclusive way. After having worked in international companies in the marketing and sales area, she founded Reinvent Yourself in 2008 and has developed and executed Conscious leadership, Communication and Diversity, Equity & Inclusion programs since then. Having worked and lived abroad for more than 20 years gives her a deep

understanding of intercultural dynamics and global challenges. Manon is the author of the book Marca Pessoal, SA ('Personal Brand') and co-author of the book Como chegar a Líder ('How to Become a Leader'). She lectures at several Portuguese universities in the fields of leadership and executive coaching. She is a volunteer at the EMCC Global Inclusion, Diversity & Equality Centre for Excellence,

Panel Speaker III

**Sagit Kedem-Yemini**

Logistics Department

Sapir Academic College

Sderot, Israel

Sagit Kedem-Yemini is an industrial engineer proficient in information systems and currently holds two lecturing positions: a tenured lecturer position at Sapir Academic College (Logistics Department) and an adjunct lecturer at Ben-Gurion University (both in IE&M and the Faculty of Business and Management). Her teaching portfolio is broad, focusing on enterprise systems implementation (SAP and Oracle Applications) and derivatives of ERP data collection, ranging from business analytics to process mining. Additionally, she has extensive experience in academic curriculum development, serving as the head of her department's teaching committee and acting as a liaison to the graduation projects unit. Her research interests include process mining and its practical applications,

ERP-related issues, and DSS development. Since 2015, she has served as a member of the JITCAR Editorial Review Board. Prior to her academic career, Dr. Kedem-Yemini worked at a global clean-room fab build-up construction management company with major clients such as Intel, Tower Semiconductors, and Teva Pharmaceuticals. During her tenure there, she held various positions, including logistics manager, scheduling manager, and CIO (Chief Information Officer).

Lean Six Sigma Panel

Thursday, July 20, 2023, 4:00 – 5:45 pm – Room 2 (Onsite)

Panel Chair

**Pedro Monteiro**

Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies

Founder and Editor, theleanmag

Associate Founder, projectoSONAR

Porto, Portugal

Pedro Monteiro holds an Industrial Engineering degree and is an Operations Management graduate with more than 15 years' experience in the manufacturing industry, always in large multinational and multicultural organizations. From process engineering to lean and operational excellence, quality and maintenance, the focus has always been high-level organizational culture and high performing teams at all value chain processes. Currently, Pedro is Operational Excellence Manager for Europe, China and New Zealand for at Allied Motion Technologies, an American company in the motion control solutions market – essentially, electric motors. Founder and editor of theleanmag, the digital magazine about lean, continuous improvement, operational excellence, leadership and organizational culture. Altruistic and with a strong community style, theleanmag shares the lean

knowledge across the globe, in all 6 continents, 57 countries, with more than 700 contacts from 27 different business sectors, and 2500+ followers on LinkedIn. Co-founder of projectoSONAR, a Portuguese benchmarking project for continuous improvement – based in visits and best practices sharing, this project's target is to "share excellence". Invited to public events, Pedro is always willing to share his knowledge, experience, and stories with the audience valuing people's efforts to grow with the mantra "knowledge is everyone's".

Panel Speaker I

**Miguel Ribeiro | MBA, LSSBB, Eng. Degree**

Entrepreneur, Trainer & Senior Consultant in Strategy and Organizational Excellence

Lean Six Sigma PgD and Certified Six Sigma Black Belt

MBA & Organizational Behavior Specialization by Porto Business School

Materials Engineering | Pre-Bologna Graduate by University of Aveiro

Porto, Portugal

Miguel Ribeiro is an Entrepreneur, Trainer & Senior Consultant in Strategy and Organizational Excellence. His Entrepreneurship ventures are most of them around Tech & Metalworking Industries. He's 20+ years of experience leading Org. Excellence, i4.0 and Change Management initiatives to deliver tangible business targets. As a Senior Consultant and Trainer most of his work deals with Strategy, Operations, X4.0, IT and recognized Lean Six Sigma Certification Programs. He has extensive experience collaborating with business leaders & teams mainly across

Portugal, EU and CPLP countries. His passion about People and the Continuous Improvement and End to End customer-focused mindset are part

of every delivery he does. Focus Sectors: Metalworking, Ceramics, Injection Molding, Textile, Woodworking, Tech & Home Appliances and LPG mainly in the Automotive, Aerospace, Metalworking, Woodworking and FMCG markets. Organizational Excellence and Change Management: cross-functional Lean Six Sigma projects and Value Stream Mapping in several businesses: savings of 15-40% following breakthrough in flow and in quality. Change Management of senior leadership into org. excellence, servant leadership. pull flow and continuous improvement mindset. Deadly Sins Change Management Gap Analysis: alignment of companies' vision and goals by operational initiatives between businesses & functions, cascading consistent objectives, measures and reviews across all levels while ensuring high employee engagement and motivation to sustain the change. Leadership Development: initiatives focused on leaders, first to ensure they have the right leadership skills followed by helping them in building high performance processes and teams through a constant culture of coaching, feedback and by a servant leadership style. Business and Marketing Strategy consultancy. IT and Tech Related : design and structuring of ERPs rollout plan in ISO9001, IATF16949 and AS9100 companies. Several BI development initiatives with Tableau and Power BI linked to the ERP DW while changing enumerative studies to Dr. Deming's Analytics mindset. Furthermore, the deployment RapidMiner and advanced Minitab trainings to Senior Leadership and Middle Management: lean processes robustness and root cause analysis by A3 Problem Solving. Ignited and led i4.0 processes and developed teams soft and hard skills for all ISA-95 MDM levels: iloT, PLCs and CRM Big Data into Low Code scrips & ERP DW.

Panel Speaker II



Bruno Moura
Operational Excellence Director
Leroy Merlin
Lisbon, Portugal

Bruno Moura is an experienced Operational Excellence Director skilled in designing, supporting and implementing World-Class Corporate Growth & Transformation Projects & Programs. He is currently the Process & Continuous Improvement Director at Leroy Merlin Portugal and the Vice-President for the European Lean Managers Society, an organization focused on sharing knowledge about between companies developing Continuous Improvement efforts in Europe. His background is in Sustainability, Safety & Health, Retail and Civil Construction but, over the past 10 years, is helping organizations to take their Continuous Improvement efforts to the next level, namely by fostering BPMn, Agile, Design Thinking, Lean/Kaizen, RPA and Process Mining to reimagine organizational service quality, boost employee engagement and lower operational costs.

Panel Speaker III



Amandine da Eira
Lean Practitioner – CSM® – Operational Excellence – Continuous Improvement –
Business Transformation
Senior Operations Analyst
Feedzai
Lisbon, Portugal

Amandine da Eira is an experienced Lean Practitioner. Graduated first in Translation, after working several years managing strategic and continuous improvement initiatives, she became a Lean Practitioner by LGN, Atlantica University, a LSSBB and has a Mini MBA in Lean Services Management. Besides providing Lean coaching and training, she has had the opportunity to lead Lean and Six Sigma projects in the Manufacturing industry (Eyeglass lenses manufacture and Electrical appliances manufacture), at the Service Industry, in the Banking Industry, and Software Industry. She is currently working as Senior Operations Analyst, Operational Excellence at Feedzai, the market leader in fighting financial crime with AI and is a certified Scrum Master. Kaizen is her motto and she is deeply committed to the Lean culture practice, not only at work with her peers but also with every person she engages with on a daily basis.

Panel Speaker IV



Pedro Sousa
Continuous Improvement Leader
IKEA Industry
Paços de Ferreira, Porto, Portugal

Pedro has a degree in Industrial Engineering and Management (before Bologna). He has extensive experience in continuous improvement, achieved since the beginning of his career in the automotive components industry. Pedro is a Six Sigma Black Belt by the Six Sigma Academy, and led several projects implementing the methodology at Lear Corporation. Since 2010, he is a Continuous Improvement Leader at IKEA Industry in Paços de Ferreira. He is driven by a passion for continuous improvement and for sharing the knowledge and experience obtained throughout his career. Keynote speaker on continuous improvement events. Trainer certified by IEFPP, he is a lecturer at ESCE/IPVC in the area of Quality. His main areas of expertise are Lean Thinking, Quality, Operations Management, Problem Solving, Six Sigma and Digital Transformation.

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 Dr. Matteo Mario Savino, Professor, Industrial Operations and Industrial Management, University of Sannio, Benevento, Italy
 Professor Don Reimer, Chief Operating Officer and Director of Student Chapter Development, IEOM Society International

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2. Women in Industry and Academia (WIIA) Panel Chair - Dr. Susana Duarte, FCT NOVA
3. Global Supply Chain and Logistics Panel Chairs - António Pita and Dr. Helena Carvalho, NOVA School of Science and Technology
4. Operations Excellence Panel Chair - Amanda Breeden
5. Sustainability Panel Chair - Professor Linda Zhang, IESEG School of Management, Paris
6. Global Engineering Education Panel Chair – Dr. Jiri Tupa, University of West Bohemia, Pilsen, Czech Republic
7. Industry 4.0 Panel Chair - Dr. Matteo Mario Savino, University of Sannio, Italy
8. Diversity and Inclusion Panel sponsored by Ford Motor Company – Prof. Don Reimer
9. Lean Six Sigma Panel Chair - Pedro Monteiro, Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies and Founder and Editor, theleanmag

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- Christoph Szedlak, University of Applied Sciences Koblenz, Faculty of Operations Management, Koblenz, Germany

Automation and Control

- Raúl Ramírez López, División de Estudios de Posgrado e Investigación, Instituto Tecnológico de Querétaro, Mexico

Biomedical Devices and Systems

E.O. Ige, Department of Biomedical Engineering, Afe Babalola University, Ado Nigeria

Business Analytics

Ufuk Cebeci, Department of Industrial Engineering, Istanbul Technical University, Macka, 34367, Turkey

Business Management

Salma Elzarka, College of Management and Technology, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

Business Process Management and Digital Transformation

Jiri Tupa, University of West Bohemia

Case Studies

Deceree Anne A. Haboy, School of Industrial Engineering and Engineering Management, Mapua University, Philippines

Construction Management

Rafiu Dimeji Seidu, School of the Built Environment and Architecture, London South Bank University, 103 Borough Road, London, SE1 0AA, UK

Cybersecurity

Francesco Simone, Department of Mechanical and Aerospace Engineering, Sapienza University of Rome, Via Eudossiana, 18 – 00184 Rome, Italy

Data Analytics and Big Data

Dr. Onur Dogan, Department of Industrial Engineering, İzmir Bakırçay University, Turkey

Decision Sciences

Adel El Omri, Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

Defense

Mohammed Maharroof, Hamad Bin Khalifa University (HBKU), Qatar

Design

Prof. Leonardo Frizziero, Associate Professor, Department of Industrial Engineering, Alma Mater Studiorum – Università di Bologna, Italy

Digital Manufacturing

Mohamed Gamal, Production Engineering Department, Faculty of Engineering, Nahda University, Beni-Suef 62521, Egypt

E-Business and E-Commerce

Marvin I. Noroña, School of Industrial Engineering & Engineering Management, Mapúa University, Intramuros, Philippines

Energy

Ahmed M. Attia, Department of Systems Engineering, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

Energy and Resource Efficiency

Raid Al-Aomar, Master of Engineering Management, College of Engineering, Abu Dhabi University, Abu Dhabi, UAE

Engineering Economy

Carlos Hernández, Universidad Austral de Chile

Engineering Education

Dr. Prof., Iryna Shvets, Vice-Rector for International Relations, Donetsk National Technical University, Pokrovsk, 85300 Ukraine

Engineering Management

Andile Mgudlwa, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

Entrepreneurship and Innovation

Prof. Stefano Scialla, Department of Engineering, Università Campus Bio-medico di Roma, Italy

Environmental Engineering

Sambasivam, Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

ERP

Anitha Ravikumar, University of Technology and Applied sciences (HCT), Muscat, UAE

Facilities Planning and Layout

Marlene Brás, Department of Economics, Management, Industrial Engineering and Tourism, University of Aveiro, Aveiro, Portugal

Healthcare Systems

Susana Duarte, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal

Human Factors and Ergonomics

Dr. Mario Fagnoli, Sapienza – University of Rome

Industrial Management

Fahmi Ramadhan Putra, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, Indonesia

Industry 4.0

Christoph Szedlak, Konrad-Zuse-Str. 1, Koblenz, Germany

Industry Solutions

Nathaniel Viandy Dondokambey, Industrial Engineering Department, Universitas Indonesia, Depok, Indonesia

Information Technology and Information Systems

Joel De Goma, School of Information Technology Department, Computer Science, Mapúa University, Makati, Philippines

Inventory Control

Youssef Boulaksil, UAE University Al Ain, Abu Dhabi, United Arab Emirates

IoT

Pratima Verma, Department of Information Management, College of Informatics, Chaoyang University of Technology, Taiwan, ROC

Knowledge Management

Sharmine Akther Liza, Ahsanullah University of Science & Technology, Dhaka, Bangladesh

Lean

Oludolapo Akanni Olanrewaju, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa

Logistics

Machine Learning

João Basto, INESC TEC – Technology and Science, Porto, Portugal

Manufacturing

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Operations Management

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Operations Research

Dr. Aidin Delgoshaei, Industrial Engineering Department, Kharazmi University, Tehran, Iran
Irina V. Burlakova, International Economy and Management Dept., Ural Federal University named after the first President of Russia B.N. Yeltsin, 19 Mira St., Ekaterinburg, 620002, Russia

Product Design and Development

Dr. Leonardo Frizziero, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

Product Lifecycle Management (PLM)

Dr. Gian Maria Santi, Department of Industrial Engineering, Alma Mater Studiorum University of Bologna, Bologna, Italy

Product / Service Configuration

Sara SHAFIEE, Technical University of Denmark, Lyngby, Denmark

Production Engineering

Jai Kumar Drave, Department of Production Engineering, National Institute of Technology, Tiruchirappalli, India

Production Planning and Control

Francisco Reis, Department of Mechanical Engineering, School of Engineering, Polytechnic of Porto, Porto, Portugal

Project Management

Professor Marouane Arroub, Department of Industrial Engineering, Ecole Mohammadia d'Ingénieurs (EMI), Mohammed V University in Rabat, Morocco

Quality Control

Fazal Abbas, Institute of Quality and Technology Management, University of the Punjab Lahore, 54000, Pakistan

Reliability and Maintenance

Ihsen ABDELMOHAMED, Doctorante en Mécanique des Matériaux, Laboratoire d'Etude des Microstructures et de Mécanique des Matériaux (LEM3), Université de Lorraine, Nancy, France

Service Engineering and Service Management

Emy Ezura Bt. A. Jalil, Technology and Supply Chain Excellence Institute, School of Technology Management, Universiti Utara Malaysia

Six Sigma

Cecilia Decesari, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, viale Risorgimento 2, 40136 Bologna, Italy

Supply Chain Management

Hafida BOULOIZ, Systems engineering and decision support laboratory, ENSA, Agadir, Morocco

Sustainability and Green Systems

Robert Valencia-Chapi, Escuela Técnica Superior de Ingenieros Industriales, Universidad Politécnica de Madrid, C/ José Gutiérrez Abascal, 2. 28006 Madrid, Spain

Sustainability in Manufacturing, Services, Logistics, and Freight transportation

Roberto Panizzolo, Department of Management and Engineering, University of Padova, Vicenza, Italy

Sustainability in Supply Chains and Operations

Andreas Sterzing, Fraunhofer Institute for Machine Tools and Forming Technology, Fraunhofer Institute, Chemnitz, Germany

Sustainable Manufacturing

Imane Benkhati, Faculté des Sciences Semlalia Marrakech, Casablanca, Morocco

Systems Dynamics

Mahdi Bastan, Department of Industrial Engineering, University of Eyvanekey, Semnan, Iran

Systems Engineering

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Ouni Fedy, Department of Transportation and Logistics, Higher Institute of Transport and Logistics of Sousse, University of Sousse, Tunisia

Waste

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 Petri HELO, University of Vaasa, Finland
 Lazhar HOMRI, Arts et Métiers ParisTech, France
 Lars HVAM, Technical University of Denmark, Denmark
 Emmanuel HYON, Sorbonne Université – LIP6, France
 Peter JACOBSEN, Technical University of Denmark, Denmark
 Daouda KAMISSOKO, IMT Mines Albi, France
 Özge Karanfil, Koç Üniversitesi, Turkey
 Laoucine KERBACHE, HEC Paris, France
 Javad KHAMISABADI, Islamic Azad University, Iran
 Reza Ramazani KHORSHID-DOUST, Amirkabir University of Technology, Iran
 Nathalie KLEMENT, Arts et Métiers ParisTech, France
 Anil Kumar, University of Derby, UK
 Arun KUMAR, RMIT University, Australia
 Vikas KUMAR, University of the West England, UK
 Elmar KUTSCH, Cranfield University, UK
 Samir LAMOURI, ENSAM Arts et Métiers ParisTech, France
 Carman LEE, Hong Kong Polytechnic University, Hong Kong
 Danping LIN, Shanghai Maritime University, China
 Chirity Yaqiong LV, Wuhan University of Technology, China
 Lahcen MIFDAL, Universiapolis Agadir, Morocco
 Mehrdad MOHAMMADI, IMT Atlantique, France
 Seyed Meysam MOUSAVI, Shahed University, Iran
 Simon Peter Nadeem, University of Derby, UK
 Balkrishna NARKEDE, National Institute of Industrial Engineering, India
 Banu OZKESER, KOLUMAN Industry Automotive, Turkey
 Maurice PILLET, Université de Savoie Mont Blanc, France
 Rakesh RAUT, National Institute of Industrial Engineering, India
 Nidhal REGZ, University of Lorraine, France
 Luis Rocha-Lona, Instituto Politecnico Nacional, Mexico
 Turki SADOK, University of Lorraine, France
 Jérémie SCHUTZ, University of Lorraine, France
 Sara SHAFIEE, Technical University of Denmark, Denmark
 Shakouri G. Hamed, University of Tehran, Iran
 Dellagi SOFIENE, University of Lorraine, France
 Reza TAVAKKOLI-MOGHADDAM, University of Tehran, Iran
 Ayeley TCHANGANI, Institut National Polytechnique de Toulouse – Ecole Nationale d'Ingénieurs de Tarbes, France
 Norbert TRAUTMANN, University of Bern, Switzerland
 Jiri TUPA, University of West Bohemia, Czech Republic
 Yazgı TÜTÜNÇÜ, Izmir University of Economics, Turkey
 Eric VILLENEUVE, Ecole Supérieure des Technologies Industrielles Avancées, France
 Junqiang WANG, Northwestern Polytechnic University, China
 Yue WANG, Hang Seng Management College, Hong Kong
 Yong WU, Griffith University, Australia
 Christoph WUNCK, Jade University of Applied Sciences, Germany
 Esma YAHIA, Arts et Métiers ParisTech, France
 Bingwen YAN, Cape Peninsula University of Technology, South Africa
 Marc ZOLGHADRI, Ecole des Ingénieurs en Mécanique de Paris, France
 Funlade Sunmola, University of Hertfordshire, Hatfield, UK
 Ali MOSTAFAEIPOUR, Industrial Engineering Department, Yazd University, Iran

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Faraj Bashir, The University of Sheffield International College, Velocity Village, Sheffield, UK
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 Leonor Teixeira, University of Aveiro, Portugal
 Abdelkader Baaziz, Institut Méditerranéen des Sciences de l'Information et de la Communication, Marseille, France
 Nuno Costa, Polytechnic Institute- Setubal School Of Technology, Portugal
 António Grião, Faculdade de Ciências e Tecnologia (FCT) da Universidade Nova de Lisboa, Portugal
 Gündüz ULUSOY, Sabanci University, Istanbul, Turkey
 Wilfried Sihn, TU Wien – Institut für Managementwissenschaften, Bereich Betriebstechnik und Systemplanung and Fraunhofer Austria Research GmbH, Austria
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 Mehmet Kursat Oksuz, Istanbul Technical University, Turkey
 Virgilio Cruz Machado, UNIDEMI – Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal
 Nacima Labadie, Université De Technologie De Troyes, Troyes, Cedex, Aube, France
 Yasmine Sabri, School of Management, Politecnico di Milano, Italy
 Prof. Patrick Dalasega, Associate Professor, Industrial Engineering and Automation, Faculty of Engineering, Free University of Bozen-Bolzano, Bozen, Bolzano, Italy
 Ana Luísa Ramos, University of Aveiro, Portugal
 Flora M^a Díaz-Pérez, University of La Laguna, Tenerife, Spain
 Susana Duarte, Department of Mechanical and Industrial Engineering, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal
 Sanjeev Kumar, Dublin Institute of Technology, Ireland
 Vladimir Modrak, TUKE, Slovakia
 Boudouda Malik, University of Champagne-Ardenne, France
 Kannan Govindan, University of Southern Denmark, Denmark
 Vassili Gerogiannis, Department of Project Management, Greece
 Miguel Sanz Bobi, Comillas Pontifical University, Spain
 Ali I. Al-Mosawi, Miskolc University, Faculty of Materials Science and Engineering, Hungary
 Salvatore Miranda, University of Salerno, Italy
 Fabio Frugiero, University of Basilicata, Italy
 Peter Toth, Trefort Agoston Centre for Engineering Education, Obuda University, Hungary
 Henk Zijm, Dutch Institute for Advanced Logistics, University of Twente, Netherlands
 Alfredo Soeiro, University of Porto, Portugal
 Yassine Ouazene, University of Technology of Troyes, France
 Matteo Mario Savino, University of Sannio, Benevento, Italy
 Murat Caner Testik, Hacettepe University, Turkey
 Patrick Pötters, University of Applied Sciences Koblenz, Germany
 Nnamdi Ogbuke, University of Central Lancashire, Preston, Lancashire, United Kingdom
 Oualid Jouini, Université Paris-Saclay, Laboratoire Génie Industriel, France
 Khurshid Khan, University of Bradford, Bradford, West Yorkshire, United Kingdom
 Mouloud Denai, University of Hertfordshire, Hatfield, Hertfordshire, United Kingdom
 Steve Martin, Coventry University, Coventry, West Midlands, United Kingdom
 Egon Mueller, Institut of Industrial Sciences and Factory Systems, Factory Planning and Factory Management, Technische Universität Chemnitz, Chemnitz, Germany
 André Mendes de Carvalho, MIT Portugal Program, University of Minho, Portugal
 Yiping Fang, Department of Industrial Engineering, CentraleSupélec, Bâtiment Bouygues – Laboratoire LGI, Cedex, France
 Berna Dengiz, Engineering Faculty of Baskent University, Baglica Campus, Ankara, Turkey
 Ana R. Xambre, University of Aveiro, Portugal
 Nadjib Brahimi, Department of Supply Chain Management, Rennes School of Business, Cedex, France
 Mario Fargnoli, The Sapienza University of Rome, France
 Funlade Sunmola, University of Hertfordshire, Hatfield, Hertfordshire, United Kingdom
 Asli Çalış Boyacı, Ondokuz Mayıs University, Samsun, Turkey
 Ahmet Boyacı, Hitit University, Çorum, Turkey
 Vladimir Bureš, University of Hradec Králové, Czechia
 Josef Basl, University of West Bohemia, Czech Republic
 Prof. Michal Simon, University of West Bohemia, Czech Republic

European Industry Committee (EIC)

Rubén Elvira-Herranz, Services Program Manager, Military Aircraft, Airbus, Madrid, Spain
 Adel Hejaai, Engineering Services Management (ESM) Limited, Essex, UK
 Gerard O'Connor, Adelaide and Meath Hospital, Dublin, Ireland

41st IEOM Global Engineering Education Global Engineering Education I

8:00 - 9:45 am - Room 1 (Onsite)

Session Chair: Sagit Kedem-Yemini

8:00 am - 8:20 am (Tuesday, July 18)

Dr. Nuno Costa

Adjunct Faculty, Mechanical Engineering Department

Escola Superior de Tecnologia de Setúbal, Instituto Politécnico de Setúbal

Researcher at UNIDEMI -Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa

Nuno Costa is with the Instituto Politécnico de Setúbal – Escola Superior de Tecnologia de Setúbal – Mechanical Engineering Department since 1995 and is a member of/researcher at UNIDEMI -Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa since 2012. He holds a PhD in Industrial Management and his scientific works have been published in indexed (WoS-Clarivate and Scopus) journals and presented in international conferences as well. Nuno Costa got seven awards in international conferences and published five book chapters, and he has acting as reviewer for SCI and Scopus indexed journals and conferences. His Scopus h_index = 12. Research and teaching activities are developed in the Operations and Quality Management (in industry and healthcare) field, and are focused on Design and Analysis of Experiments (RSM and Taguchi methods), Statistical Quality Control, Acceptance Sampling, 6-Sigma and Lean Management. He also has acting as consultant and has implemented ISO 9000 quality management systems.

8:20 am - 8:40 am (Tuesday, July 18)

Özgür Erol – Istanbul Medipol University.

Özgür Erol works as a faculty member and advisor for the Operations Research Society, a student group under the Industrial Engineering Department of Istanbul Medipol University. In addition to advising undergraduate capstone projects, she teaches various courses, including engineering management, systems analysis and design, business process analysis and design, and project management. She brings a variety of academic expertise and practical experience to her work, holding an MBA from Saint Joseph's University in Philadelphia, Pennsylvania, as well as bachelor's and master's degrees in Industrial Engineering from Istanbul Technical University in Turkey. She spent more than ten years working in the professional field before entering academics.

Pınar Çelik -- Istanbul Medipol University

Pınar Çelik is an undergraduate student in Industrial Engineering at Istanbul Medipol University. She is the Co-Founder & President at Istanbul Medipol University Operations Research Society. In addition, she works as a freelancer interpreter and Business Consultant.

ID 175 The Role of Co-Curricular Activities in Enhancing the Educational Outcomes of Industrial Engineering Program: A Continuous Improvement Perspective

Özgür Erol and Pınar Çelik, İstanbul Medipol University, Turkey

8:40 am - 9:00 am (Tuesday, July 18)



Sagit Kedem-Yemini

Logistics Department

Sapir Academic College, Sderot, Israel

ID 263: Gender Equity and diversity in Academia: intersectional analysis of academic staff in Israel via process mining

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

Sigal Nagar-Ron and Tammy Razi, Multi-Disciplinary Studies, Sapir Academic College, Sderot, Israel

Sagit Kedem-Yemini is an industrial engineer proficient in information systems and currently holds two lecturing positions: a tenured lecturer position at Sapir Academic College (Logistics Department) and an adjunct lecturer at Ben-Gurion University (both in IE&M and the Faculty of Business and Management). Her teaching portfolio is broad, focusing on enterprise systems implementation (SAP and Oracle Applications) and derivatives of ERP data collection, ranging from business analytics to process mining. Additionally, she has extensive experience in academic curriculum development, serving as the head of her department's teaching committee and acting as a liaison to the graduation projects unit. Her research interests include process mining and its practical applications, ERP-related issues, and DSS development. Since 2015, she has served as a member of the JITCAR Editorial Review Board. Prior to her academic career, Dr. Kedem-Yemini worked at a global clean-room fab build-up construction management company with major clients such as Intel, Tower Semiconductors, and Teva Pharmaceuticals. During her tenure there, she held various positions, including logistics manager, scheduling manager, and CIO (Chief Information Officer).



9:00 am - 9:20 am (Tuesday, July 18)

Anesh Zutshi

Professor Auxiliar

Departamento de Engenharia Industrial

Nova School of Science and Technology | FCT NOVA

Universidade NOVA de Lisboa

Campus de Caparica, Caparica, Portugal

Fostering Entrepreneurship and Technological Innovation at the University

Dr. Anesh Zutshi is an Assistant Professor at NOVA School of Science and Technology and specializing in

Entrepreneurship, Digital Platforms and Emerging Digital Technologies. He has a vast experience in designing and implementing Entrepreneurial Education Programmes which combine Technology Application with entrepreneurial team building. He is coordinating the annual course on Empreendedorismo at the Faculty of Science and Technology at Universidade Nova de Lisboa which involves 1000 students taking the course in multidisciplinary teams. He is also coordinating executive programmes on Artificial Intelligence and Blockchain Technologies at Nova Executive Education. His topics of research include Digital Platforms and Digital Business Models.

July 18, Tuesday

Global Engineering Education II

2:00 - 3:45 pm - Zoom Room 1 (Virtual)

Session Chair:

Dr. Ir. Wahyudi Sutopo, ST., M.Si, IPM

Professor, Department of Industrial Engineering

Past Head of Department of Industrial Engineering

Coordinator of Industrial Engineering and Techno-Economy (RITE) Research Group

Universitas Sebelas Maret (UNS), Surakarta, Indonesia

2:00 pm - 2:20 pm (Tuesday, July 18)

Dr. Md. Abu Taher

2:20 pm - 2:40 pm (Tuesday, July 18)

Fitra Lestari

2:40 pm - 3:00 pm (Tuesday, July 18)

Rosemary Seva

3:00 pm - 3:20 pm (Tuesday, July 18)

María Teresa Verduzco Garza

3:20 pm - 3:40 pm (Tuesday, July 18)

Prof Dr Abdul Talib Bon

40th IEOM Industry Solutions and Industry 4.0 - Plenary

Industry Solutions I

July 19, Wednesday

8:00 – 9:45 pm – Meeting Room 1 (Onsite)

Session Chair:

8:00 – 8:20 am (Wednesday, July 19)



Carlos Guilherme Frias

**Innovation Digital Transformation Leader & Product Owner
Millennium bcp, Lisboa, Portugal**

I have two synergetic Master degrees that give the required tools to overcome as many barriers as I come across with. Thanks to an objective reasoning, focus and teamwork, I have held projects in more than 7 different countries and countless sectors. Feel free to contact me, or to skim my profile.

I began working in GSK (Belgium) reporting to the PMO of the Supply-Chain department learning and contributing to several ongoing projects. After a while, I moved back to Portugal where I was Senior Lean Consultant in Kaizen Consulting Group, working in 4 countries and +20 clients. Currently, I work in Millennium BCP Bank Group, leading digital transformation projects, redesigning key-processes within the organization and promoting a customer-centric and agile bank. Two umbrella projects include managing a +2M€ Service Channel and being Product Owner of a

Conversational AI tool (manager of Product Development team).

I am therefore proficient in implementing digital ecosystems aligned with a continuous-improvement culture, leading to disruptive and impacting results and projects. After countless key-account projects on different industries and geographies, I was praised by team-members and clients for my personal refreshing mindset to develop, plan and implement innovative initiatives, thriving in these time-bounded and intense interactions.

I have graduated with honorable mentions (summa cum laude) and as class' valedictorian, which allowed me to enrol in a premium-Master programme (Double Master Degree). I unlocked the possibility to grow in two areas to which I am found to: Industrial Engineering and Management & Business Engineering. Minors included Operational Research, Sourcing and Procurement, Marketing and Supply Chain Management.

Progressively excelling at managing my time and energy, I constantly find new opportunities to grow, being active on several international institutions. ESTIEM stands out giving me the opportunity to develop new work-methods and to succeed managing multicultural teams. As European Project Leader, I was constantly challenged, improving my Coordination- and Soft-skills. Similarly, at IST, as a student association VP, I have conceptualized, organized and promoted avg. 2 events per month, reaching +600 participants, while volunteering as a mentor.

8:20 – 8:40 am (Wednesday, July 19)

8:40 – 9:00 am (Wednesday, July 19)



Pedro Paz

**Project Manager and Process Optimization – Digital Transformation
The Navigator Company
Lisboa, Lisbon, Portugal**

Pedro holds a Master's degree in Management and Industrial Engineering, along with certifications in Lean Practitioner and Enterprise Data Science. Currently is Project Manager at The Navigator Company in Portugal, where he leads process improvement and digital transformation initiatives. He has successfully managed a diverse range of improvement projects, optimizing business technology, innovation, and human-machine dematerialization. Pedro's expertise also extends to Lean and Six Sigma methodologies background, where he has excelled as a Lean Sensei, driving continuous improvement and implementing operational excellence programs in the pulp, paper, and converting industry.

9:00 – 9:20 am (Wednesday, July 19)



Daniela de Almeida

**Senior Consultant
Kaizen Institute Western Europe
Trofa, Porto, Portugal**

9:20 – 9:40 am (Wednesday, July 19)

**Pedro Alexandre Marques**

Senior Consultant at Profitability Engineers
Assistant Professor, Universidade Lusófona de Humanidades e Tecnologias
Lisbon, Portugal

Pedro Alexandre Marques, has a varied career that includes management consultant, trainer, Lean manager, quality manager, lecturer, researcher, author, and problem solver. Graduated with honors from the NOVA School of Science and Technology (FCT NOVA) in Industrial Engineering and Management (2001) and completed his Ph.D. in Industrial Engineering (2013) from the same university. He has been working in varied fields such as metal forming, retail and distribution, pharmaceuticals, food processing, automotive, education and training, and others. Freelance consultant and trainer (2017-), Assistant Professor at the Faculty of Engineering of the Lusófona University (2014-), Invited Lecturer at ISEP - Polytechnic of Porto School of Engineering (2021-); Senior Consultant at Profitability Engineers (2022-); Senior Learning & Development Specialist at Hovione Pharmaceutical (2021-2023), Lean Manager at Auchan Retail Portugal (2018-2021), Lean Expert and Project Manager at the Expertise Center for Continuous Improvement of SONAE (2017-2018), Senior Consultant (2006-2016) and Quality Manager (2003-2005) at ISQ - Institute for Welding and Quality; Invited Teaching Assistant at the Faculty of Engineering of the Catholic University of Portugal (2008-2012). Coordinator of the Master Program in Continuous Improvement of APCER - Portuguese Association for Certification (2019-), Coordinator of the Post-graduate Program in Lean & Operations Management of ISQ (2016-2020). Certified Six Sigma Black Belt by the American Society for Quality (2014-), Licensed Coaching Practitioner by the Association for Coaching (2018-), Shingo Alumni certification by the Shingo Institute (2021-). Winner of various national and international awards, including: LeanCon 2020 | 3rd Prize, awarded by the European Lean Managers Society, the 2018 Emerald Literati Award for Highly Commended Paper, and the 2015 Best Improvement Project in Portugal awarded by the Portuguese Association for Quality.

July 19, Wednesday

Industry Solutions II

2:00 – 3:45 pm – Zoom Meeting Room 1 (Virtual)

Session Chair:**Ts. Dr. Mehran Doulat, Ph.D.**

Adjunct Professor & Associate Researcher
Best Practice Improvement Resource (BPIR.com)
The Centre for Organizational Excellence Research (COER), Massey University, New Zealand
Editorial Board for the International Journal of Industrial Engineering and Operations Management (IJIEOM)

Mehran is currently an Adjunct Professor and Associate Researcher at the Centre for Organizational Excellence Research (COER), Massey University, New Zealand. He holds a Bachelor of Science in Industrial Engineering, a Master of Science in Engineering Management (specializing in quality management & productivity) from the University of Wollongong, Australia, and a PhD degree in Operations Management. Mehran has also completed a 2-year Post-Doctoral Fellowship in the area of innovation and performance measurement. He has worked as a Visiting Professor, Adjunct Professor and Research Fellow in several research institutions in Asia, Europe, and North America. Mehran has been actively involved in many global collaborative academic research as well as industrial and consultancy projects across a range of industries from manufacturing, service, construction, healthcare, higher education to government entities, and public enterprises. He serves as a member of the Editorial Board, Editorial Advisory and Review Board, and Guest Editor for several high-ranking peer-reviewed international scientific journals as well as scientific and technical committees chairs in many referred conferences. Mehran is an active senior member and contributor of the Industrial Engineering and Operations Management Society International, a certified EFQM Excellence Assessor, and 'T.R.A.D.E.' Best Practice method. Mehran's research focuses on Industry 4.0 & 5.0, Quality 4.0, Operations Excellence, Lean Operations, Digital Transformation, Digital Logistics/Supply Chain, Benchmarking Business Excellence, Sustainable Green Supply Chain, and Lean Six Sigma. Prior to beginning his academic career, Mehran worked more than 10 years in different UAE (Dubai) industries holding various positions and duties. He also served as a Senior Assessor for the Dubai Quality Award (DQA) program for 5 years.

2:00 – 2:20 pm (Wednesday, July 19)

2:20 – 2:40 pm (Wednesday, July 19)

2:40 – 3:00 pm (Wednesday, July 19)

3:00 – 3:40 pm (Wednesday, July 19)

**Foad H Khanli**

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

Title: **Lean Six Sigma Black Belt Project – Reduction in Clients/Customers Lost, Improve Quality of Service and Clients Care**

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.

Submissions Received from Countries and Territories

1. Albania	11. Finland	22. Jordan	32. Peru	43. Turkey
2. Algeria	12. France	23. Kuwait	33. Philippines	44. United Arab Emirates
3. Bangladesh	13. Germany	24. Malaysia	34. Portugal	45. United Kingdom
4. Botswana	14. Ghana	25. Mexico	35. Qatar	46. United States
5. Brazil	15. Greece	26. Morocco	36. Saudi Arabia	47. Uruguay
6. Canada	16. India	27. Netherlands	37. Singapore	48. Vietnam
7. Chile	17. Indonesia	28. Nigeria	38. South Africa	49. Zimbabwe
8. China	18. Iran	29. Oman	39. Spain	
9. Czech Republic	19. Ireland	30. Pakistan	40. Taiwan	
10. Egypt	20. Israel	31. Papua New Guinea	41. Thailand	
	21. Italy		42. Tunisia	

14th International Conference on Industrial Engineering and Operations Management

February 12-14, 2024, Dubai, United Arab Emirates (UAE)

Venue: Hyatt Regency Dubai

Host: Khalifa University, Abu Dhabi

<http://ieomsociety.org/dubai2024/>

Conference Chair:

Dr. Mohammed Omar

Professor and Chair, Department of Industrial and Systems Engineering
Khalifa University, Abu Dhabi, UAE

20th IEOM Global Supply Chain and Logistics

Global Supply Chain and Logistics I

July 20, 8:00 – 9:45 am – Meeting Room 1 (Onsite)

8:00 am – 8:20 am (Thursday, July 20)



Ms. Sebonkile Thaba
Lecturer of Supply Chain Management
Department of Transport and Supply Chain Management
University of Johannesburg, South Africa

She is currently a lecturer at the University of Johannesburg, holding Master of Technology Degree in Operations Management. Ms. Thaba serves at the Department of Transport and Supply Chain Management, lecturing 3rd-year students on Purchasing and 4th-year students on Logistics Processes and Practices. Ms Thaba's research area are enterprise development, Sustainable Supply Chain Management and Cooperatives. She has so far published one book-chapter and 25 peer-reviewed international conferences papers. She has 34 Google Scholar citations with three h-index, and 1 I10- Index. She is awarded Academic Doctorate Advancement Project towards Transformation (ADAPTT) Scholarship, which is the collaboration of University of Florida (USA) and South Africa Higher Education (SA-HE) Network (UJ). Sebonkile received three global prestige's awards from Industrial Engineering and Operations Management (IEOM)-International Society, Best Track Paper Award, Outstanding Service Award and Teaching & Learning Award in Supply Chain Management. She is a Track Chair for Waste Management and Supply Chain Management, Annual International Conference on Industrial Engineering and Operations Management. Sebonkile formed part of the diversity and Inclusion panelist from the 2nd African International Conference on Industrial Engineering and Operations Management in Harare Zimbabwe, December 2021. Ms. Thaba currently is working on two projects, on Enterprise Development, which is Sustainable Supply Chain Management on Agricultural Farming Industry and Social Value Chain Economy within Local Community Enterprises. She currently a PhD candidate at University of Johannesburg, with a proposed title: Deconstructing the Social in Sustainable Supply Chain Management for African Farmers.

ID 394 Impact of Blockchain in Enhancing Sustainable Supply Chain Activities Within Enterprises

Sebonkile Thaba, Lecturer for Supply Chain Management, Department of Transport and Supply Chain Management, University of Johannesburg, Johannesburg, South Africa
Charles Mbohwa and Nelson Madonsela, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

8:20 am – 8:40 am (Thursday, July 20)



Dr. Palash Dey, CSCM™
Head of Supply Chain Management
Expert in Planning, Sourcing Procurement & Negotiation
Acom Infrastructure Services Ltd
Ottawa, Ontario, Canada

8:40 am – 9:00 am (Thursday, July 20)



João Pedro Mendes
Head of Procurement for Grids
EDP Global Solutions
Lisbon, Portugal

9:00 am – 9:20 am (Thursday, July 20)

ID 410 Increased Capacity in Industrial Equipment

Inês Pereira Esteves, Masters in mechanical engineering – Industrial Management, School of Engineering Polytechnic of Porto, Porto, Portugal
Marisa João Guerra Pereira De Oliveira, Department of Mathematics of Engineering, School of Engineering Polytechnic of Porto and Associate Laboratory for Energy, Transports and Aerospace (LAETA-INEGI), Porto, Portugal
Maria Teresa Ribeiro Pereira, Department of Mechanical of Engineering, School of Engineering Polytechnic of Porto and Associate Laboratory for Energy, Transports and Aerospace (LAETA-INEGI), Porto, Portugal
Filipe R. Ramos, Department of Statistics and Operational Research, CEAUL-Centro de Estatística e Aplicações, Faculdade de Ciências, Universidade de Lisboa, Lisboa, Portugal

9:20 am – 9:40 am (Thursday, July 20)

**Dr. Ahad Ali**

Associate Professor

Director, Bachelor of Science in Industrial Engineering & Master of Science in Industrial Engineering

Director of Smart Manufacturing and Lean Systems Research Group

Director, Graduate Certificate in Lean Six Sigma

Coordinator, Siemens Electro-Matic Industrial Engineering Lab

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

Lawrence Technological University, Southfield, Michigan, USA

Executive Director, IEOM Society International

Ahad Ali is an Associate Professor and Director of Industrial Engineering Programs (BSIE & MSIE), Director of Graduate Certificate in Lean Six Sigma and Director of Smart Manufacturing and Lean Systems Research Group, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering at the Lawrence Technological University, Southfield, Michigan, USA. He established Siemens Electro-Matic Industrial Engineering Lab at LTU in 2019. Dr. Ali was the primary author of the ABET self-study report of the BSIE Program at LTU in 2022. He earned B.S. in Mechanical Engineering from Khulna University of Engineering and Technology (KUET), Bangladesh, Masters in Systems and Engineering Management from Nanyang Technological University, Singapore and Ph.D. in Industrial Engineering from University of Wisconsin-Milwaukee, USA. Dr. Ali was Assistant Professor in Industrial Engineering at the University of Puerto Rico - Mayaguez, Visiting Assistant Professor in Mechanical, Industrial and Manufacturing Engineering at the University of Toledo and Lecturer in Mechanical Engineering at the Bangladesh Institute of Technology, Khulna. He received an Outstanding Professor Award of the Industrial Engineering Department, University of Puerto Rico - Mayaguez, (2006-2007). He has published 60 journal and 150 conference papers. Dr Ali has conducted research projects with Chrysler, Ford, DTE Energy, New Center Stamping, Whelan Co., 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 manufacturing systems modeling, simulation and optimization, intelligent scheduling and planning, artificial intelligence, predictive maintenance, e-manufacturing, and lean manufacturing. He supervised 11 doctoral students. Dr. Ali has involved with many international conference committees. He is the Founder of IEOM Society International and serving as an Executive Director. Dr. Ali serves as a Conference Co-Chair of the International Conference on Industrial Engineering and Operations Management and organized events in Dhaka, Kuala Lumpur, Istanbul, Bali, Dubai, Orlando, Detroit, Rabat, UK, Bogota, Paris, Washington, DC, Pretoria, Bangkok, Pilsen, Toronto, Costa Rica, Sao Paulo, India, Riyadh, Manila and Sydney. He is a member of IEOM, INFORMS, SME and IEEE.

Global Supply Chain and Logistics II

July 20, 2:00 – 3:45 pm – Zoom Meeting Room 1 (Online)

Theme - Strategies to build a more resilient supply chain

Session Chair:

Rajeev Agrawal, Ph.D.

Associate Professor

PG Coordinator (Industrial Engineering)

Department of Mechanical Engineering

Malaviya National Institute of Technology Jaipur

Fellow of The Institution of Engineer (IEI), India

Founder Secretary, Indo-US Research Institute for Sustainable Development, JSC

Innovation Ambassador, MoE Innovation Cell and AICTE



Rajeev Agrawal is an Associate Professor in the Department of Mechanical, at the Malaviya National Institute of Technology Jaipur. He has more than 24 years of Professional Experience. Dr. Agrawal was an Assistant Professor in Production Engineering at the Birla Institute of Technology, Mesra Ranchi India, and a Lecturer in Mechanical Engineering at the HCET, Jabalpur (M.P.) India. He earned B.E. in Mechanical Engineering from G.E.C. Jabalpur (M.P.), India in 1998, Masters in 2001 from M.N.N.I.T., Allahabad, and Ph. D. in 2012 from Birla Institute of Technology, Mesra (Ranchi). He established CAD Lab at HCET Jabalpur in 2001 and CAM Lab at BIT Mesra in 2017. He was a Production Division Board member, The Institution of Engineers (I). (2015-16), and a Board member, of Birla Institute of Technology, Mesra (Ranchi), 2015-16. Dr Agrawal serves on the editorial board of three international journals and has guest edited special issues in around 10 journals and books, has published 30 journals and 71 conference papers. He has also published book chapters on Industry 4.0, Smart Manufacturing Integration of Process Planning and Scheduling, Smart Actuators, Sustainable Manufacturing and Reconfigurable Assembly Systems etc. with renowned international publishers. He is a recognized reviewer of reputed international SCI Journals and Conferences. Dr. Agrawal has research funding from major funding agencies including ICSSR, MSME, ADA, GOI, under NPMASS, and IE(I). Dr. Agrawal is a Coordinator, Ministry of Micro, Small and Medium Enterprises, Government of India "Design Expertise for Manufacturing MSME sectors. Dr. Agrawal research interest is on Lean Six Sigma, Sustainable Manufacturing, Supply Chain Design, Solving real-life Operations management related problems, Automation in Manufacturing, and reconfigurable manufacturing systems. His project got accolades from Home Guard and Civil Defense, Madhya Pradesh for "proposing the optimal locations for the emergency operation centers across Madhya Pradesh. His projects included, "Facility Location and Product Flow Optimization, using Spatial and Network Analysis in GIS" at the MP Council of Science and Technology, Bhopal. He implemented "Warehouse Location Optimization for different Telecom Circles across India" in a leading Telecom Company. He led a project in "Supply chain network optimization" at a beverage company. His projects included "Application of multi-threading to parallelize an industrial process control program based on the technique of Differential Evolution" in a leading Steel company. His project team proposed a "Model of a Fuzzy Automation System" for a Steel Wire Roll Mill. His work includes Process excellence in the IT sector in an emerging economic scenario. His work includes "Supply Chain Optimization using Linear Programming Model and GIS" to Reduce the Overall Freight Cost. He supervised 02 doctoral students. Dr. Agrawal has been involved with many international conference committees. He is the Founder Secretary, Indo-US Research Institute for Sustainable Development, JSC. Dr. Agrawal serves as a Session chair and International Advisory Board Committee Member in many national and international conferences and Delivered keynote talks at various platforms of National and international stature including the 3rd European International Conference on IEOM Pilsen, Czech Republic. July 23-26, 2019, 11th Annual International Conference on Industrial Engineering and Operations Management in Singapore during March 7-11, 2021 Delivered invited lectures in various STC and FDP organized by DST, AICTE Training and Learning (ATAL) Academy- New Delhi, National Institute of Technology, Warangal, Raipur, Ultrakh and, Centre for Electronic Governance, Jaipur, Chhattisgarh Academy of Administration, IIT, Kanpur, Indian Railways Institute of Mechanical & Electrical

Engineering, Jamalpur and several other institutes of International and national repute. Organised more than 20 International and National Conferences and seminar, workshops. He is a member of IE(I), IIPe, ISTE, ASI, ORSI and IAE.

Speakers



Prof. Guilherme F. Frederico

Professor of Operations, Supply Chain and Project Management
School of Management
Federal University of Paraná – UFPR
Curitiba, Brazil

Title – Supply Chain 4.0

Prof. Guilherme F. Frederico is a Professor of Operations, Supply Chain and Project Management at Federal University of Paraná – UFPR – School of Management, Curitiba, Brazil. He works by teaching and leading researches in the graduate programs (PhD and MSc in Information Management and Master in Business Administration) and undergraduate programs (Business Management) at UFPR. Also, Prof. Frederico has been working in collaboration with the Centre for Supply Chain Improvement at University of Derby – UK as a Visiting Professor and affiliated Researcher. His research interests and expertise on Supply Chain Management field are related to Maturity and Performance Measurement, Project Management, Knowledge Management, Strategic Sourcing and Impacts from Industry 4.0 and Industry 5.0. He has published his research outcomes in international journals such as Supply Chain Management an International Journal, Journal of Cleaner Production, Business Process Management Journal, International Journal of Productivity and Performance Management, Operations Management Research Journal, Benchmarking an International Journal, International Journal of Logistics Management and Knowledge and Process Management Journal. Prof. Frederico is an Area Editor of Operations Management Research – OMR – Springer Journal and member of the Editorial Board of the Computers & Industrial Engineering Journal – Elsevier, Sustainable Manufacturing and Service Economics – Elsevier and International Journal of Industrial Engineering and Operations Management – Emerald. He has also been leading some special issues on reputed and highly ranked journals as managing guest editor as well as serving as an expert reviewer. Prof. Frederico has also been contributed to some reputable supply chain magazines (e.g., Supply Chain Management Review, Logistics Management, Celerity Logistics, Performance Magazine) publishing articles with relevant practical insights. Also, he has been invited as international guest speaker in universities of different countries such as UK, Sweden, India and UAE. Previously the academic career he worked in strategic positions for more than 10 years on SCM field in Global and Large Companies (e.g., Bunge, Deere & Company) involving different segments of Industry including manufacturing and logistics services operations.

Dr. Cemalettin Ozturk

Munster Technological University
Ireland

9th North American Conference on Industrial Engineering and Operations Management

Washington, DC, USA, June 4-6, 2024

Host: University of University of the District of Columbia, Washington, DC

Venue: UDC Campus, 4200 Connecticut Ave NW

Conference Chair

Dr. Devdas Shetty

Dean, School of Engineering and Applied Sciences and Professor of Mechanical Engineering

University of the District of Columbia, Washington, DC, USA

7th European Conference on Industrial Engineering and Operations Management, Augsburg / Munich, Germany, July 16-18, 2024

Host and Venue: Augsburg Technical University, Augsburg, Bavaria, Germany

<http://ieomsociety.org/germany2024/>

Conference Chair

Dr. Jürgen H. Lenz

Research Professor - AI in Manufacturing
Augsburg Technical University of Applied Science
Augsburg, Bavaria, Germany

Parallel Sessions

All Times are Lisbon, Portugal Time

Monday, July 17, 2023

	Room 1 - Virtual	Room 2 - Virtual	Room 3 - Virtual	Room 4 - Virtual
8:00 am	Undergraduate Paper Competition Sponsored by Siemens	Supply Chain and Logistics Competition	Graduate Student Paper Competition Sponsored by Eaton	Master's Thesis Competition
10:00 am	Undergraduate Paper Competition Sponsored by Siemens	Senior Design and High School STEM Competitions	Lean Six Sigma Competition sponsored by Tooling Tech Group	Doctoral Dissertation Competition
12:00 pm	Undergraduate Research Competition sponsored by Daikin Applied	COVID-19 Analytics Competition	Simulation Competition	Business Management
2:00 pm	Human Factors and Ergonomics Competition sponsored by CINTAS	Operations Management	Lean Six Sigma	Operations Research
4:00 pm	Virtual Keynote I - Dr. Raphael Grzebieta, Emeritus Professor (Road Safety), Transport and Road Safety (TARS) Research Centre, School of Aviation, University of New South Wales, Sydney, Australia – Virtual Room 1			
4:40 pm	Virtual Keynote II - Prof. Patrick Dallasega, Associate Professor, Industrial Engineering and Automation, Faculty of Engineering, Free University of Bozen-Bolzano, Bozen, Bolzano, Italy – Virtual Room 1			
5:20 pm	AI + EM – Virtual Room 1			

Tuesday, July 18, 2023

	Room 1 – Ballroom Onsite	Room 2 Onsite	Room 3 Onsite	Room 4 Onsite	Room 5 Online
8:00	Global Engineering Education	Data Analytics Panel	Doctoral Dissertation Competition & Master's Thesis Competition	Business Management	Sustainability
10:00	Welcome Address – Host University Leadership and Professor Don Reimer, Chief Operating Officer, IEOM Society International				
10:20	Keynote I: João Paulo Ribeiro, Senior Vice President Operations and Supply Chain, Visteon, Portugal				
11:00	Keynote II: Prof. Virgilio Cruz Machado, Director / Dean, Nova School of Science and Technology FCT NOVA, Universidade NOVA de Lisboa, Caparica, Portugal				
11:40	Keynote III: Dr. Tomohik Sakao, Professor of Sustainable Product/Service Systems, Linköping University, Sweden				
12:20	Keynote IV: Vânia Gomes, Director of Quality and Food Safety and Assistant to the production management, Chocolates Excelsior Company, Lisbon, Portugal				
1:00	Lunch Break				
2:00	Posters				
2:00	Dave's "Rolls-Royce" Presentation	Women in Industry and Academia (WIIA) Panel	Undergraduate Paper Competition Undergraduate Research Competition	Decision Sciences and OR	Engineering Systems
4:00	Six Sigma Certification Workshop	Global Supply Chain and Logistics Panel	Graduate Student Paper Competition Lean Six Sigma Competition Supply Chain Competition	Supply Chain Management	Engineering Management

Wednesday, July 19, 2023

	Room 1 – Ballroom Onsite	Room 2 Onsite	Room 3 Onsite	Room 4 Onsite	Room 5 - Online
8:00	Global Industry Solutions	Operations Excellence Panel	Industry 4.0	Sustainability and Manufacturing	Operations Research and IoT
10:00	Conference Chair Remarks				
10:20	Keynote V: António Novais, Managing Director, Palmetal / Thyssenkrupp Portugal, Portugal				
11:00	Keynote VI: Dr. João Matias, Professor, Universidade de Aveiro, Portugal				
11:40	Keynote VII: Dr. Luís Ferreira, Professor, Universidade Coimbra, Portugal				
12:20	Keynote VIII: Dr. Ana Paula Póvoa, Professor, Técnico / Universidade de Lisboa, Portugal				
1:00	Lunch Break				
2:00	Toyota Kata Workshop The Secret Sauce for Toyota Production System	Sustainability Panel	Industry 4.0	Lean Six Sigma	Industrial Management
4:00 pm		Global Engineering Education Panel	Modeling and Simulation	Reliability and Risk	Technical Presentations

Thursday, July 20, 2023

	Room 1 – Ballroom Onsite	Room 2 Onsite	Room 3 Onsite	Room 4 Onsite	Room 5 - Online
8:00	Global Supply Chain and Logistics	Industry 4.0 Panel	Operations Research	Engineering Management and Project Management	Risk and Occupational Health and Safety (OHS)
10:00	Conference Chair Remarks				
10:20	Keynote IX: Luís Bastos, Digital Industries Country Head, Siemens Portugal, Amadora, Lisbon, Portugal				
11:00	Keynote X: Prof. Jürgen H. Lenz, Research Professor, Augsburg Technical University of Applied Science, Nördlingen, Bavaria, Germany				
11:40	Keynote XI: Luis Lopes Pereira, Country Director, Medtronic Portugal, Lisboa, Lisbon, Portugal				
12:20	Keynote XII: Joint Keynote - Pedro Monteiro, Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies, Founder and Editor, theleanmag, Associate Founder, projectSONAR, Porto, Portugal Dave Harry, Retired U.S. Naval Aviator, CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA Dr. Tony Prensa, PhD, Chief Executive Officer & Founder, TP Global Business Consulting, LLC, Orlando, Florida, USA				
1:00	Lunch Break				
2:00	PM Workshop - Emotional Intelligence (EQ)	Diversity and Inclusion Panel sponsored by Ford Motor Company	HF and Healthcare	Smart Systems, Education and Diversity	Technical Presentations
4:00	Innovation and Entrepreneurship Workshop	Lean Six Sigma Panel	Data Analytics and Business Analytics	Technical Presentations	Reliability and Maintenance

Awards Ceremony and Dinner Buffet

7:00 – 10:00 pm, July 20, 2023 – Doubletree by Hilton Fontana Park

July 17, 2023 (Monday)

July 17, 2023 (Monday) - Session: 8:00 – 9:45 am

8:00 am – 11:45 am, MONDAY

Virtual Room 1

Undergraduate Student Paper Competition Sponsored by Siemens

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

ID 26 A Multi-step optimization method for the optimization of interior permanent magnet Motor for EV

Pham Minh Tu, Bui Minh Dinh, Nguyen Nga Viet, and Dang Quoc Vuong, School of Electrical and Electronics Engineering, Hanoi University of Science and Technology (HUST), Vietnam

ID 201 Assessing the Performance of IoT-enabled Smart Luggage Tracking

Haifa Albalochi, Lamar Aljahdali, Layan Jaman and Joud Kaki, Computer Science, College of Engineering, Effat University, Jeddah, Saudi Arabia
Tayeb Brahimi, Research Energy Lab, College of Engineering, Effat University, Jeddah, Saudi Arabia

ID 27 Acoustic Noise Analysis of a 5G Telecom Base Station Design

Bui Minh Dinh, Vu Tuan Duc, Khong Van Manh, Nguyen Duc Thinh, Nguyen Quoc Hung and Dinh Van Hai, Dept of IDME-VTBR Center, Viettel High Technology Industries Corporation, Hoa Lac Hi-tech Park Hanoi, Vietnam

ID 8 Electromagnetic Performance Analysis of Electrically Excited and Interior Permanent Magnet Motor for Electric Vehicle Application

Tieu Xuan Hoang, and Nguyen Huu Duc, Electric Power University, Vietnam
Bui Minh Dinh, Hanoi University of Science and Technology (HUST), Vietnam

ID 281 Exploring Innovative Solutions for Enhancing Warehouse Management Efficiency

Sura Alharthy, Middle East College, Oman

ID 116 Identifying the Factors Influencing the Adoption Intension of Online Freight Forwarding Services

Nattakorn Pinyanitikom, Graduate Student of Chiang Mai University, Chiang Mai, Thailand
Wirachchaya Chanpuyetch, College of Education and Sea Management, Graduated School of Chiang Mai University, Chiang Mai, Thailand

ID 205 Machine Learning-Based Forecasting of Ambulance Arrivals: Insights for Shift-Based ED Resource Allocation

Jordan Larot, Dang Minh Nhu Nguyen, Likhitha Yelamanchili, Evelyn Tran, Egbe-Etu Etu and Imokhai Tenebe, San Jose State University San Jose, CA, 95192, USA
Satheesh Gunaga, Department of Emergency Medicine, Henry Ford Wyandotte Hospital & Envision Healthcare, Wyandotte, MI, 48192, USA
Joshua Emakhu, Joseph Miller, Department of Emergency Medicine, Henry Ford Health, Detroit, MI, 48202, USA
Onome Edo, Department of Information Systems, Auburn University at Montgomery, Montgomery, AL 36117, USA

ID 216 Optimization of Economic Viability for Meat Alternatives

Helen Zhong, The Estée Lauder Companies Inc., Markham, Ontario, Canada
Bedis Elkamel, Department of Health Sciences, University of Central Florida, Orlando, Florida, USA
Tong Li Han, Toyota Motor Manufacturing Canada, Woodstock, Ontario, Canada
Gholamreza Zahedi, Beyond Meat, Food and Beverage Services El Segundo, California, USA

ID 2 Perceived Employee Engagement, Collaborative Capability, and Service Tenure as Correlates of Employee Performance: A Multivariate Analysis

America, Girlie; De Palma, Mary Leinel; Demalata, Fiona Mae; Denila, Robert Ryan; Inocencio, Bheatrixe and Oblino, Sharmae Jayne, Department of Industrial Engineering, College of Engineering and Architecture, Technological Institute of the Philippines – Quezon City, Philippines

ID 206 Rauvolfia Serpentina (Serpentina) And Peperomia Pellucida (Pansit-Pansitan) As an Antiparasitic Spray Against Rhipicephalus Sanguineus Latreille (Common Ticks)

Mahmooda Aziza Bhatti, Bulacan State University, Philippines

ID 396 Catalytic Graphitization by Nickel Nitrate and Characterization on Palm Oil Solid Waste Graphite

Rinette Visca, Cynthia Veronika and Tania Utami, University of Indonesia
Joddy Arya and Dasep Sunarya, National Research and Innovation Agency BRIN, Indonesia
Asep Handaya Saputra, University of Indonesia

8:00 – 9:45 am, MONDAY, July 17

Virtual Room 2

Supply Chain and Logistics Competition

Session Chairs: Dr. Abdelaziz Berrado, Professor, Department of Industrial Engineering, The Ecole Mohammadia d'Ingénieurs (EMI), Rabat, Morocco and Aqib Islam, Assistant Editor, IEOM Society

ID 290 Moving from STEM to STEAM

Kandis Boyd Wyatt, American Public University, United States

ID 226 The last-mile distribution of fresh e-commerce logistics: Case Study in Guiyang, China

Yuechen Chen, International Logistics and Supply Chain Management, School of Management, Mae Fah Luang University, ChiangRai, 57100, Thailand

Sunida Tiwong, Logistics and Supply Chain Management, School of Management, Mae Fah Luang University, ChiangRai, 57100, Thailand

ID 103 Leagility in the Healthcare Research - A Systematic Literature Review

Xueying LI, PhD student in Strategy and Entrepreneurship, Business Research Unit (BRU-IUL), Iscte - Instituto Universitário de Lisboa
Lisbon, Portugal

Ana Lúcia Martins, Associate Professor in Operation Management, Integrated Researcher at Business Research Unit (BRU-IUL), Iscte - Instituto Universitário de Lisboa, Lisbon, Portugal

ID 278 Supply Chain Risks Management in Manufacturing Industry. Case Study from a Developing Country

Eralda Xhafka, Dea Sinoimeri and Jonida Teta, Lecturer in the Department of Production and Management, Polytechnic University of Tirana
Tirana, Albania

ID 271 The Impact of Supply Chain Management on South African Local Government Municipalities' Financial Performance

Ernest Lasie Mgidi, University of Johannesburg, South Africa

Professor Pule Kholopane, University of Johannesburg, South Africa

ID 268 Retirement System Improvement to Reduce Downtimes in the Spare Parts Workability in Medical Devices Manufacturing in Puerto Rico

Hecyaliz Rubero, Graduate Student, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico, Department of Industrial Engineering and Management, Engineering, Desing, and Architecture, Gurabo, Puerto Rico

Doris Rivera, Graduate Student, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico, Department of Industrial Engineering and Management, Engineering, Desing, and Architecture, Gurabo, Puerto Rico

Keishla M. Hernández, Graduate Student, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico, Department of Industrial Engineering and Management, Engineering, Desing, and Architecture, Gurabo, Puerto Rico

Yesenia Cruz Cantillo, PhD, MSIE, MECE, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico, Department of Industrial, Engineering and Management, Engineering, Desing, and Architecture, Gurabo, Puerto Rico

ID 100 Budget Allocation for Humanitarian Logistics: A Data-Driven Approach

Hongzhang Yang and Lei Xu, Georgia Tech Shenzhen Institute, Tianjin University, Shenzhen, China

Adam Ng Tsan Sheng, National University of Singapore, Singapore

Xiaoqiang Cai, The Chinese University of Hong Kong, Shenzhen, Shenzhen, China

ID 381 Evaluating the Efficiency of a Procurement Process at an Institution of Higher Learning

Bongumenzi Mncwango, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa

Kemlall Ramdass, Professor in Industrial Engineering, University of South Africa, Johannesburg, South Africa

8:00 – 9:45 am, MONDAY, July 17

Virtual Room 3

Graduate Student Paper Competition sponsored by Eaton

Session Chairs: Alexandra Tenera (FCT NOVA) and Nusrat Islam, Assistant Editor, IEOM Society

ID 296 Assessing Spatial Planning Readiness to Accommodate Innovative Transport Systems and Technologies

Desmond Nkopodi Mphahlele and Trynos Gumbo, University of Johannesburg, Department of Urban and Regional Planning, Office 6062, Sixth Floor, John Orr Building, Beit and Siemert Street, 2028. Johannesburg, South Africa

Thembanani Moyo, Centre for Applied Research + Innovation in the Built Environment (CARINBE), University of Johannesburg, Department of Construction Management & Quantity Surveying, Office 6166, Sixth Floor, John Orr Building, Beit and Siemert Street, 2028. Johannesburg, South Africa

ID 274 Design and Operation of a GPT-powered Smart Manufacturing System

Yiyun Fei, Shu Wang and Mulang Song, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA

Jianxin (Roger) Jiao, Associate Professor of Mechanical Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA

ID 367 First-Come, First-Serve? Gig Worker Performance and Task Allocation in an On-demand Platform

Reeju Guha, PhD Candidate, Operations Management, IE Business School, IE University, Madrid, Spain

ID 225 Implementation of Enterprise Resource Planning in Companies: A Systematic Literature Review

Adinda Lestari Siregar, Faculty of Economics and Business, Sumatera Utara University - Medan, Indonesia

Ridhani Fahlika Siregar, Faculty of Economics and Business, Sumatera Utara University - Medan, Indonesia

Sambas Ade Kesuma, Faculty of Economics and Business, Sumatera Utara University - Medan, Indonesia

ID 363 Socioeconomic Influence of Big Data in Southern African Development Countries and Sub-Saharan Countries

Tanyaradzwa Machingauta, Amrita school of engineering, India

ID 234 The Impact of Limited Access to Quality Ferrous Scrap on Competitiveness of South African Ductile Iron Producers

Daniel Sekotlong and Steven Mavhungu, Metal Casting Technology Station, University of Johannesburg, Johannesburg, South Africa

ID 113 Towards Data-Driven, Sustainable Supply Chain Quality Management 5.0 Indicators

Joana Lazzaris, Department of Production and Systems, School of Engineering, University of Minho, Braga, Portugal

André M. Carvalho, Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, NOVA University Lisbon
Caparica, Portugal

Maria Sameiro Carvalho, Department of Production and Systems, School of Engineering, University of Minho, Braga, Portugal

8:00 – 9:45 am, MONDAY, July 17

Virtual Room 4

Master's Thesis Competition

Session Chair: Dr. Mario Fargnoli Associate Professor, Universitas Mercatorum, Rome, Italy and Dr. Subrata Talapatra, KUET, Bangladesh

ID 104 Consumer Behavior Towards Consumption, Disposal, and Awareness of Household E-waste: A Study in Portugal

Giulia Molinari, Department of Business and Management, Luiss University, Italy

ID 270 Digital Twin Enhanced Smart Assembly System Design and Analysis for Resilient Operations

Mulang Song, Ph.D. Candidate of Mechanical Engineering, Georgia Institute of Technology, Atlanta, USA
 Shu Wang, Ph.D. Candidate of Mechanical Engineering, Georgia Institute of Technology, Atlanta, USA
 Yiyun Fei, Ph.D. Candidate of Mechanical Engineering, Georgia Institute of Technology, Atlanta, USA
 Jianxin (Roger) Jiao, Associate Professor of Mechanical Engineering, Georgia Institute of Technology, Atlanta, USA

ID 227 Examining the Interconnectedness and Interdependencies of Public Transportation Systems: A case of Soweto, Johannesburg

Nhlaluko Maluleke and Trynos Gumbo, Department of Urban and Regional Planning, University of Johannesburg, PO Box 524 Auckland Park, 2006, South Africa
 Thembani Moyo, Postdoctoral Fellow: Centre for Applied Research + Innovation in the Built Environment (CARINBE), University of Johannesburg, PO Box 524 Auckland Park, 2006, South Africa
 Walter Musakwa, Department of Geography & Environmental Management & Energy Studies, University of Johannesburg, PO Box 524 Auckland Park, South Africa

ID 284 Regeneration of Plating Baths through Magnetic Nanoparticles: Life Cycle Assessment, Cost and Ecoefficiency Analysis

Sofia Dias Alves, Recent Graduate at FCT NOVA - School of Sciences and Technology, Department of Mechanical & Industrial Engineering, Caparica, Portugal

ID 89 Revolutionary Pickup Truck Idea Formulated Using Industrial Design Structure Method (IDeS)

Marco Freddi, Enrico Polpatelli, Curzio Pagliari, Leonardo Frizziero and Giulio Galie, Department of Industrial Engineering, University of Bologna, Bologna, BO 40136, Italy

ID 325 Risks Management & Mitigation in Supply Chain Management: Literature Review and Reserch Oppurtunity

Mustika Ratnawati Faizzah, Department of Industrial and Systems Engineering, Sepuluh Nopember Institute of Technology, Surabaya, Indonesia
 Suparno, Department of Industrial and Systems Engineering, Sepuluh Nopember Institute of technology, Surabaya, Indonesia

ID 463 Maintenance Optimization Model of a Railway Workshop Incorporating Opportunistic Maintenance

Md. Ariful Alam and Md. Rafiqzaman, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna, Bangladesh

ID 360 Application of Statistical Process Control for Monitoring the Administered Dose in PET/CT Nuclear Medicine Examinations

Joana Carmelo, Research Fellow, Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal
 Ana Sofia Matos, Associate Professor in Industrial Engineering and Management, Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal
 Vanessa de Sousa and Gabriela Cardoso, Hospital Physician, Nuclear Medicine Department, Hospital Garcia de Orta, E.P.E., Almada, Portugal
 Ana Isabel Santos, Director of Nuclear Medicine Department, Hospital Garcia de Orta, E.P.E., Almada, Portugal

July 17, 2023 (Monday) - Session: 10:00 – 11:45 am

10:00 – 11:45 am, MONDAY

Continuing Session

Virtual Room 1

Undergraduate Student Paper Competition Sponsored by Siemens

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

10:00 – 11:45 am, MONDAY, July 17

Virtual Room 2

Senior Design and High School STEM Competitions

Session Chairs: Dr. Abdelaziz Berrado, Professor, Department of Industrial Engineering, The Ecole Mohammadia d'Ingénieurs (EMI), Rabat, Morocco and Aqib Islam, Assistant Editor, IEOM Society

High School STEM Competition

ID 273 CRISPR solution to cure Acute Myeloid Leukemia

Shrinidhi Kulkarni, International Academy East, United States

ID 159 Predictive Analysis of Invasive Plants

Nicholas Lu, Student, The Haverford School, Haverford, PA 19041, United States

Senior Design Competition / FYP Competition sponsored by Tooling Tech Group

ID 330 E-Commerce Optimal Packaging Project

Alara Kumru, Kerem Tuna, Berfin Kondakci, Efe Doğruer, Şevval Berksöz and Onat Gürcanok, Ozyegin University, Faculty of Engineering Department of Industrial Engineering, Turkey

10:00 – 11:45 am, MONDAY, July 17

Virtual Room 3

Lean Six Sigma Competition sponsored by Tooling Tech Group

Session Chairs: Alexandra Tenera (FCT NOVA) and Nusrat Islam, Assistant Editor, IEOM Society

ID 111 Lean is not always Green! Green Lean Synergies and Conflicts, and Recommendations for Successful Integrated Implementation – State of the Art Literature Review

Saif Al Hamhami, Doctorate of Business Administration Student at Derby Business School, College of Business, Law and Social Sciences University of Derby, Derby, United Kingdom

ID 94 Lean Manufacturing Waste Prediction and Reduction Model

B.B.S Makhanya, J. H.C. Pretorius and H. Nel, Postgraduate School of Engineering Management, Faculty of Engineering and Built Environment University of Johannesburg, Johannesburg, Gauteng, South Africa

ID 208 Improve Process to Reduce Wastes in Production: Case Study of Agricultural Machinery Parts Manufacturing Company

Juthamat Khamboongam, System Engineering Program, School of Industrial Engineering Institute of Engineering, Suranaree University of Technology, Nakhon Ratchasima Province, Thailand
Jongkol Srithorn, System Engineering Program, School of Industrial Engineering Institute of Engineering, Suranaree University of Technology, Nakhon Ratchasima Province, Thailand

ID 219 Reducing Waste in The Production of Agricultural Machinery Parts: Case Study Manufacturing Process of Collar A Tractor Parts

Natthanicha Jantree, System Engineering Program, School of Industrial Engineering Institute of Engineering, Suranaree University of Technology, Nakhon Ratchasima Province, Thailand
Jongkol Srithorn, System Engineering Program, School of Industrial Engineering Institute of Engineering, Suranaree University of Technology, Nakhon Ratchasima Province, Thailand

ID 275 Utilizing the DMAIC Methodology to Drive a Built-In-Quality Changeover Process in a Thermoforming Line for an Automotive Component Manufacturer

Edward Sontaga Makua, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa
Mendon Dewa, Lecturer, Durban University of Technology, Durban, South Africa

10:00 – 11:45 am, MONDAY, July 17

Virtual Room 4

Doctoral Dissertation Competition

Session Chairs: Dr. Mario Fagnoli Associate Professor, Universitas Mercatorum, Rome, Italy and Dr. Subrata Talapatra, KUET, Bangladesh

ID 181 Improved Dynamic Latent Variable Modeling for Process Monitoring and Diagnosis

Haitian Zhang, PhD Candidate in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada
Qinqin Zhu, Assistant Professor in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada
Ali Elkamel, Full Professor in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada

ID 260 Supply Chain Responsiveness: Dimensions, Relationships and Impact on Performance

Carla Cruz and Luís Miguel D. F. Ferreira, University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering, Polo II Coimbra, 3030-788, Portugal

ID 262 The Impact of Logistics Service Provider Integration on Manufacturing Company Competitiveness

Ana Isabel Bento, Luís Miguel D. F. Ferreira and Gabriela Fernandes, University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering, Polo II, Coimbra, 3030-788, Portugal

ID 411 An Improved strength Pareto with a global adaptive search and selecting algorithm (ISPGAEA)

Mohamed H. Gadallah and Abdel Rahman Ali M. Ahmed, Mechanical Design & Production Department, Faculty of Engineering, Cairo University, Egypt

July 17, 2023 (Monday) - Session: 12:00 – 2:00 pm

12:00 – 1:45 pm, MONDAY, July 17

Virtual Room 1

Undergraduate Research Competition sponsored by Daikin Applied

Session Chairs: André Carvalho (FCT NOVA) and Tipu Sultan, IEOM

ID 6 Application of Bayes' Theorem in different research aspects

Hasin Zafir, Islamic University of Technology, Bangladesh

ID 298 Consumer Preferences: Sensory Attributes of Sea Urchin Chips

Abatayo, Sarah Jane; Armenton, Exchel; Misa, Philbert And Pastor, Lainesie, Cebu Technological University – Main Campus, Department of Industrial Engineering, M.J. Cuenco Ave., Cor. R. Palma Street, Cebu City, Cebu

ID 366 Re-engineering Arnis Sticks Bag for CTU-MC Martial Artists Using Design Thinking Principle

John Cadogdog, Cebu Technological University-Main Campus, Philippines

ID 332 Waste Management from Papua New Guinea's perspective

Sandy Stephen, Papua new Guinea University of technology (PNG), Papua New Guinea

ID 241 Optimizing Nurse and Dialysis Unit Scheduling for Hemodialysis Patients

Bedis Elkamel, Department of Health Sciences, University of Central Florida, Orlando, Florida, USA

ID 440 Awareness of e-waste management and disposal practices among engineering students in South India

S.M.Hasanuddin, Student, Methodist College of Engineering and Technology, Hyderabad, India

Qutubuddin S.M., Associate Professor, P.D.A. College of Engineering, Kalaburagi, India

Ayesha Fatima, Student, Stanley College of Engineering and Technology for Women, Hyderabad, India

Saheba Aijaz, Student, Stanley College for Women, Hyderabad, India

Namra Mahveen and Umaira Shahneen, Student, P.D.A.College of Engineering, Kalaburagi, India

12:00 – 1:45 pm, MONDAY, July 17**Virtual Room 2****COVID-19 Analytics Competition****Session Chairs:** Ana Sofia Matos (FCT NOVA) and Nusrat Islam, IEOM**ID 105 Optimizing the Implementation of Sustainable Green Construction Strategies Post the Covid-19 Pandemic in Jakarta**

Yenita, Faculty of Engineering, Universitas Tarumanagara, Letjen S. Parman No. 1 West Jakarta, Indonesia

ID 223 The adoption of Industry 4.0 in Moroccan industrial companies to overcome the crisis Covid-19

Mephtaha Guennoun, PhD student, Engineering, Systems and Applications Laboratory, ENSA, Fez, Morocco

Fatima Bennouna, Professor, Engineering, Systems and Applications Laboratory, ENSA, Fez, Morocco

ID 295 Optimizing Short-Term Forecasting of Rice Stock-commercial during the COVID-19 Pandemic using GA-Based Holt-Winters Method

Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

Bryan B. Navarro, Electrical Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

Jennifer L. Camino, Civil Engineering Department, Technological Institute of the Philippines, Cubao Quezon City, Philippines

ID 235 A Review of Employees Training and Development in Navigating through Pandemic Covid-19: Malaysian Perspective

Ahmed Saleh Ahmed Saif Al-Shameri, Siti Sarah Omar and Sharaf Al-Azam, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

Mahdi Mohammed Abdullah Abkar, Faculty of Civil Engineering and Built Environment, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

Talaat Hassan Alhaj Ali Alawadhi, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

12:00 – 1:45 pm, MONDAY, July 17**Virtual Room 3****Simulation Competition****Session Chairs:** Rogério Puga Leal (FCT NOVA) and Tahera Parven, Assistant Editor, IEOM Society**ID 329 Innovative Students-Based Course Project Methodology for Modeling and Simulation of Industrial Systems**

Faris Ashraf, Ahmed Mohsen, Mohamed Salhen and Ahmed Shaban, Mechanical Engineering Department, Faculty of Engineering, Fayoum University, Fayoum 63514, Egypt

ID 148 A Data-driven Approach for PIDs Tuning in Energy-intensive Industry: Application to Evaporator in Kraft Pulp Mill

Haitian Zhang, PhD Candidate in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada

Mohamed El Koujok, Research Scientist in Energy Efficiency and Technology Department, Canmet ENERGY-NRCAN in Varennes, Qc, Canada

Qinqin Zhu, Assistant Professor in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada

Hakim Ghezzaz, Process Engineer in Energy Efficiency and Technology Department, Canmet ENERGY-NRCAN, Varennes, Qc, Canada

Ali Elkamel, Full Professor in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada

ID 258 Interlaminar Stresses in Hemp Reinforced Composite Laminates

Som R. Soni, AdTech Systems Research Inc., 1342 North Fairfield Road, Beavercreek, Ohio 45432, USA

Craig Schluttenhofer and Subramania I. Sritharan, Agricultural Research and Development Program (ARDP), College of Engineering, Science, Technology and Agriculture, Central State University, 1400 Brush Row Road, Wilberforce, OH 45384, United States

12:00 – 1:45 pm, MONDAY, July 17**Business Management****Virtual Room 4****Session Chair:** Khristian Edi Nugroho Soebandrija, Industrial Engineering Department, Bina Nusantara University, Jakarta, Indonesia**ID 331 Integration of ESG and Financial Descriptors for Investment Portfolio Selection**

Hsin-Hui Hung, Department of Business Management, National United University, Miaoli, Taiwan

Wen-Ling Chen, Department of Business Management, National United University, Miaoli, Taiwan

Yu-Shan Lin, Department of Business Management, National United University, Miaoli, Taiwan

Chu-Ning Liu, Department of Business Management, National United University, Miaoli, Taiwan

Ming-Fu Hsu, Assistant Professor, Department of Business Management, National United University, Miaoli, Taiwan

ID 178 L'entrepreneuriat: De L'idée À La Réalisation

Fatiha Regragui, EST -Meknès, Morocco

ID 38 Improving the effectiveness of Enterprise Resource Planning (ERP) system implementation using a hybrid process mining and FMEA framework

Behrouz Mirkhanzadeh, M.Sc. of Industrial Engineering, Islamic Azad University, South Tehran Branch, Tehran, Iran
Erfan Hassannayebi, Assistant Professor, Industrial and System Engineering, Department of Industrial Engineering, Sharif University of Technology Tehran, Iran

Moojan Kamalzadeh, Ph.D. of Telecommunications Engineering, Erik Jonsson School of Engineering and Computer Science, The University of Texas at Dallas, Texas, USA

Bahador Zandi, M.Sc. of Industrial Engineering, Islamic Azad University, West Tehran Branch, Tehran, Iran

ID 282 The Role and Benefits of Business Process Simulation in Digital Transformation Process Within Banking Sector- Case of Absa Bank Limited

Mayver Ramogayane, Zamokuhle Pila and Rose Seanego, Design Team: Process Engineering, Absa Bank Limited, Johannesburg, South Africa

ID 291 Integration of Engineering, Information Technology and Business vis-à-vis Sustainable Business and Strategy

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

ID 292 Multidisciplinary Lens of Sustainable Business and Strategy through Sustainable Technology Adoption

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

July 17, 2023 (Monday) - Session: 2:00 – 4:00 pm

2:00 – 4:00 pm, MONDAY, July 17

Virtual Room 1

Human Factors and Ergonomics Competition sponsored by CINTAS

Session Chairs: Rogério Puga Leal (FCT NOVA) and Tahera Parven, Assistant Editor, IEOM Society

ID 7 A comparison of 3D-based electronic scanning and manual anthropometric measurement for Indonesian's women: A case study of fashion design

Markus Hartono, Professor of Industrial Engineering, Department of Industrial Engineering, Faculty of Engineering, University of Surabaya, Surabaya, Indonesia

Dian Prianka, Christabel Annora Paramita Parung, Brian Kurniawan Jaya and Viviany, Department of Product Design, Faculty of Creative Industries University of Surabaya, Indonesia

ID 177 Analyzing the Benefits of Incorporating Human Factors in Socio-Technical Systems

Mfundo Nkosi, University of Johannesburg, South Africa

ID 65 Ergonomic Risk Assessment of LPG Hose Handling Process at a Gantry Operation: A Basis for Administrative and Engineering Improvement

Mc Ronel P. Olivario, Dr. James Louie R. Meneses, Ramil Joshua L. Peñamante, Bryan Dave G. Bermundo and Engr. Gervin S. Espinosa, College of Engineering, Manuel S. Enverga University Foundation, Lucena City, Quezon, Philippines

ID 64 Relationship between Ergonomic Assessment and Physical Discomfort of Workers in the Twining Process

Ma. Concepcion D. Marchan, James Louie R. Meneses, Hannah P. Santonil, Rendell Neil S. Ogis, and Leonito G. Magkulang, College of Engineering, Manuel S. Enverga University Foundation, Lucena City, Quezon, Philippines

ID 269 Dynamic Task Allocation for Human-automation Symbiosis with an Application to Medical Product Assembly

Shu Wang, Muang Song and Yiyun (Cindy) Fei, School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA 30332, USA

Dandan (Emily) Zhang, Fellow and Director of TE Connectivity, Shanghai, China

Nagi Z. Gebraeel, Professor of H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, GA, USA

Roger J. Jiao, Associate Professor of School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA 30332, USA

2:00 – 4:00 pm, MONDAY, July 17

Operations Management

Virtual Room 2

Session Chair: Thakaramahlaha Lehohla, Wits Mining Institute, South Africa

ID 383 Application of Project & Operations Management Methodologies to Real Time Information Management System for Efficiency In The Mineral Sector

Thakaramahlaha Lehohla, Wits Mining Institute, South Africa

Pule Kholopane, Vaal University of Technology, South Africa

ID 389 A Systematic Review on Applications of Artificial Neural Networks in the Extraction Metallurgy Industry

N. G. Zulu and M. J. MVITA, Department of Metallurgy, School of Mining, Metallurgy and Chemical Engineering, Faculty of Engineering and the Built Environment, University of Johannesburg, Doornfontein Campus, 55 Beit St, Johannesburg 2028, South Africa

Mineral Processing and Technology Research Centre

B. Thethwayo, Senior Lecturer, Department of Metallurgy, School of Mining, Metallurgy and Chemical Engineering, Faculty of Engineering and the Built Environment, University of Johannesburg, Doornfontein Campus, 55 Beit St, Johannesburg 2028, South Africa

ID 390 Assessment Center for quality-related position

Sara Ait Bahom, Department of Information and Communication Systems Laboratory, National School for Applied Sciences, Tangier, Morocco

Lotfi Chraïbi, Department of Information and Communication Systems Laboratory, National School for Applied Sciences, Tangier, Morocco

Naoufal Sefiani, Engineering, Innovation Management and Industrial Systems Research Team, Faculty of Science and T, Tangier, Morocco

ID 391 Incorporating Micro Supply Chain in the Simulation of the Food-Energy-Water Nexus

Marwen Elkamel and Luis Rabelo, Department of Industrial Engineering & Management Systems, University of Central Florida, Orlando, USA

ID 395 An Input-Output-Based Assessment of the Global Food Security Index

Hamad Nabeel, Muna Alansari, Galal M. Abdella, Adeeb A. Kutty and Issa M. Al Mohammadi, Mechanical and Industrial Engineering Department College of Engineering, Qatar University, Doha, Qatar

2:00 – 4:00 pm, MONDAY, July 17**Lean Six Sigma****Virtual Room 3****Session Chair: Panagiotis Mallioris, International Hellenic University, Thessaloniki, Greece****ID 398 Investigating the Water Reticulation problem in the Nkangala District Municipality of Mpumalanga Province**

D. R. Hills, T.M Phumo, M.R Mafafo, M. E. Matlakala and D. V. V. Kallon, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

ID 400 Modelling Water Pumping System in the Govan Mbeki Local Municipality

P. Sekwakwa, A. Cholo, T. Ramaila, M. E. Matlakala and D. V. V. Kallon, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

ID 416 Exploitation of the “Persea Americana” seed for the elaboration of bioplastics. A bibliographical review

Cabrejos Arellano Karol Jubitzta, University of Lima, Lima, Peru

Wong Wang Alicia, University of Lima, Lima, Peru

Garcia-Lopez Yvan Jesús, Facultad de Arquitectura e Ingeniería, Universidad de Lima, Lima, Peru

ID 397 Implementation of The Value Stream Mapping 4.0 Method in A Warehouse

Racha BENMIMOUN, PhD researcher at Industrial Engineering Laboratory, University of Mohamed Premier, Oujda, Morocco

Yosra EL KIHEL, Professor and researcher at the University of Bordeaux, Professor at the Institut Catholique d'Arts et Métiers, Bordeaux, France

Soufiane EMBARKI, An engineer-researcher at Industrial Engineering Laboratory, University of Mohamed Premier, Oujda, Morocco

Bachir EL KIHEL, Professor and researcher at the University of Mohamed Premier, Oujda, Morocco

ID 401 Intelligent Quality Control in Cold Supply Chains

Panagiotis Mallioris, Department of Industrial Engineering and Management, International Hellenic University, Thessaloniki, Greece

Dimitrios Bechtsis, Department of Industrial Engineering and Management, International Hellenic University, Thessaloniki, Greece

Dimitrios Vlachos, Department of Mechanical Engineering, Industrial Management Division, Aristotle University of Thessaloniki, Greece

Georgios Papapanagiotakis, R&D Department, Emphasis DigiWorld, Athens, Greece

Theodora Todi, R&D Department, Emphasis DigiWorld, Athens, Greece

Maria Papaspyropoulou, R&D Department, Atlantis Engineering, Thessaloniki, Greece

Konstantinos Georgakidis, R&D Department, MEVGAL, Thessaloniki, Greece

Nikolaos Sfitis, R&D Department, Makios Logistics, Thessaloniki, Greece

ID 412 Lean Six Sigma Black Belt Project- Reduction in Clients/Customers Lost, Improve Quality of Service and Clients Care

Foad Hosseinkhanli, Amor Health Services, Inc., Texas, United States

2:00 – 4:00 pm, MONDAY, July 17**Operations Research****Virtual Room 4****Session Chair: Nova Mae S. Sipalay, Cebu Technological University-Main Campus, Cebu, Philippines****ID 313 A novel integer programming model for the fixture schedule of Turkish professional soccer league**

Yasin Göçgün, Associate Professor of Industrial Engineering, Department of Industrial Engineering, Istanbul Medipol University, Istanbul, Turkey

ID 327 Assessing the Long-Term Performance of MACD Strategy in the Philippine Stock Market: A 12-Year Review

Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

Bryan B. Navarro, Electrical Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

ID 272 Improve the Efficiency of Sample Collection and Analysis in Service Orders Request Using Markov Chains

María Y. Rivera González, Undergraduate Student, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico

Juan E. Rosa Serrano, Undergraduate Student, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico

Yesenia Cruz Cantillo, PhD, MSIE, MECE, Universidad Ana G. Méndez, Gurabo Campus, Gurabo, Puerto Rico

Department of Industrial Engineering and Management, Engineering, Design, and Architecture, Gurabo, Puerto Rico

ID 323 Pandemic Impact on Residential Electricity Customer Load Profile Clustering

Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

Bryan B. Navarro, Electrical Engineering Department, Technological Institute of the Philippines, Cubao, Quezon City, Philippines

ID 314 Tourist Preference Analysis for a Tourism Hub using AHP-TOPSIS

Nova Mae S. Sipalay, Jurlan E. Acosta and Niezelle L. Fordaliza, Student in the Department of Industrial Engineering, Cebu Technological University-Main Campus, Cebu, Philippines

Dyonne Bernadine G. Mirasol, Part-Time Professor in the Department of Industrial Engineering, Cebu Technological University-Main Campus, Cebu, Philippines

ID 435 After the Covid-19 Pandemic, The structure, Behavior, and Performance of Indonesia's Halal Food Industry

Samuel Alkadri Manihuruk, Doctoral Student, Borobudur University, Indonesia

Christianus Manihuruk, Lecture, Bina Nusantara University, Indonesia

July 17, 2023 (Monday) - Session: 4:00 – 6:00 pm – Virtual Room 1

Virtual Keynote Speakers

4:00 pm Virtual Keynote I

Dr. Raphael Grzebieta

Emeritus Professor (Road Safety), Transport and Road Safety (TARS) Research Centre, School of Aviation, University of New South Wales, Sydney, Australia

4:40 pm Virtual Keynote II

Prof. Patrick Dallasega

Associate Professor, Industrial Engineering and Automation, Faculty of Engineering, Free University of Bozen-Bolzano, Bozen, Bolzano, Italy

5:20 – 7:00 pm, MONDAY, July 17**AI and EM****Virtual Room 1****Session Chair: Dr. George Pappas, LTU****ID 441 Towards a Neuro-Symbolic Approach to Bridge the Gap Between Brain and Mind-Inspired Models**Fabio Caversan, Nabih Jaber and George Pappas, Lucas Rodrigues, Geanderson Ferreira, Danilo De Almeida, Carlos Veber and Gabriel Dias Rezende Martins, Department of Electrical and Computer Engineering Lawrence Technological University, Southfield, MI 48075, USA
Stefanini Group - SAI Research and Development Labs, 27100 W 11 Mile Rd, Southfield, MI 48034**ID 442 Applying Six Sigma to Reduce Electricity Bill in Single Family Residential Home**

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

ID 443 MLB Sports Prediction Using Basic Classification

N. Maxine Kennebrew and George Pappas, Department of Electrical and Computer Engineering and Department of Math and Computer Science Lawrence Technological University, Southfield, MI 48075, USA

ID 444 Cybersecurity Threats and Vulnerabilities in a Remote Keyless Entry System

Veronika Orman and George Pappas, Department of Electrical and Computer Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 382 A Review of Integration Models for Industry 4.0 and Lean ManagementBongumenzi Mncwango, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa
Kemlall Ramdass, Professor in Industrial Engineering, University of South Africa, Johannesburg, South Africa

July 18, 2023 (Tuesday)

July 18, 2023 (Tuesday) - Session: 8:00 – 9:45 am

8:00 – 9:45 am, TUESDAY, July 18**Onsite Room 1**
Global Engineering Education

Session Chair: Sagit Kedem-Yemini

8:00 am - 8:20 am (Tuesday, July 18)

Dr. Nuno Costa

Adjunct Faculty, Mechanical Engineering Department, Instituto Politécnico de Setúbal – Escola Superior de Tecnologia de Setúbal
Researcher at UNIDEMI -Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa

8:20 am - 8:40 am (Tuesday, July 18)

Özgür Erol

İstanbul Medipol University
Turkey**ID 175 The Role of Co-Curricular Activities in Enhancing the Educational Outcomes of Industrial Engineering Program: A Continuous Improvement Perspective**

Özgür Erol, İstanbul Medipol University, Turkey

8:40 am - 9:00 am (Tuesday, July 18)

Sagit Kedem-Yemini
Logistics Department

Sapir Academic College
Sderot, Israel

ID 263 Gender Equity and diversity in Academia: intersectional analysis of academic staff in Israel via process mining

Sagit Kedem-Yemini, Logistics Department, Sapir Academic College, Sderot, Israel
Sigal Nagar-Ron and Tammy Razi, Multi-Disciplinary Studies, Sapir Academic College, Sderot, Israel

9:00 am - 9:20 am (Tuesday, July 18)

Aneesh Zutshi
Professor Auxiliar
Departamento de Engenharia Industrial
Nova School of Science and Technology | FCT NOVA
Universidade NOVA de Lisboa
Campus de Caparica, Caparica, Portugal

Fostering Entrepreneurship and Technological Innovation at the University

8:00 – 9:45 am, TUESDAY, July 18

Onsite Room 2

Data Analytics Panel

Panel Chair

Dr. Hamed Gholami
Asst. Professor of Industrial Engineering
Mines Saint-Étienne
France

Panel Speaker I

Mrs. Jocelyn Ke Yin Lee
Research and Development Engineer
Mines Saint-Étienne
France

Talk Title: Contribution of big data analytics to developing sustainable products

Panel Speaker II

Dr. Mohadese Basirati
Assistant Professor of Industrial Engineering
Mines Saint-Étienne
France

Talk Title: Application of Multi-Criteria Decision-Making Methods for Human Resource Task Scheduling in Multi-Sided Platforms

8:00 – 9:45 am, TUESDAY, July 18

Onsite Competition Presentations

Onsite Room 3

Doctoral Dissertation Competition

ID 228 Building an Interoperable, Open, and Patient-Centric Global Architecture for Personal Health Data Management

Ricardo Silva Ribeiro, Ph.D. student in the Doctoral Programme of the Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal
Aneesh Zutshi Assistant Professor, Department of Industrial Engineering and Management at NOVA University Lisbon, Portugal
UNIDEMI, Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal
Laboratório Associado de Sistemas Inteligentes, LASI, Guimarães, Portugal

ID 303 Big Data Analytics for Financial Decision Making by Small and Medium Scale Enterprises in South Africa

Lawrance Seseni, Faculty of Engineering and the Built Environment, Postgraduate School of Engineering Management, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa
Charles Mbohwa, Faculty of Engineering and the Built Environment, Postgraduate School of Engineering Management, Full Professor in Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa
Nelson Sizwe Madonsela, Faculty of Engineering and the Built Environment, Postgraduate School of Engineering Management, HOD of Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa

ID 24 Characterization and Prediction of Functional Parameters of Grain Slurry Food Processing Machine Using Response Surface Analysis

Egwuagu Onyekachi Marcel, Department of Mechanical and Production Engineering, Enugu State University of Science and Technology, P.M.B 01660, Enugu State, Nigeria

ID 198 How Digital Transformation is Reshaping Supply Chains: From Networks to Ecosystems

Evans Amoah, David Asamoah, Kwame Owusu Kwateng and John Serbe Marfo, Department of Supply Chain and Information Systems - School of Business, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Francis Andoh-Baidoo, Full Professor in the Department of Information Systems, The University of Texas Rio Grande Valley, Robert C. Vackar College of Business and Entrepreneurship, McAllen, Texas, United States

ID 82 A Waste to 3D Printing: the development of additive symbiotic networks

Inês A. Ferreira, PhD Student, Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal
Helena Carvalho, Associate Professor, Industrial and Management Engineering, UNIDEMI – Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, 2829-519 Caparica, Portugal

ID 418 Embedding Small-Scale Poultry Producers into Sustainable Supply Chain Management: A South African Perspective

Sebonkile Thaba, Lecturer for Supply Chain Management, Department of Transport and Supply Chain Management, University of Johannesburg, Johannesburg, South Africa
Charles Mbohwa and Nelson Madonsela, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

Master's Thesis Competition

8:00 – 9:45 am, TUESDAY, July 18

Business Management

Onsite Room 4

Session Chair: Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

ID 72 Behavioral Perspective of Electronic Financial Trading: Development and Future Agenda

Utkarsh Goel, Assistant Professor in the Department of Management Studies, Indian Institute of Information Technology Allahabad, Prayagraj, India
Shailendra Kumar, Associate Professor in the Department of Management Studies, Indian Institute of Information Technology, Allahabad, Prayagraj, India
Sayed Mohammad Ali Hasan, Research Scholar in the Department of Management Studies, Indian Institute of Information Technology Allahabad Prayagraj, India

ID 264 Role of digital leadership in achieving digital readiness through organizational optimization

Syed Muhammad Shariq and Felicita Chromjaková, Faculty of Management and Economics, Department of Industrial Engineering and Information Systems, Tomas Bata University in Zlín, Czech Republic

ID 137 Industrial Productivity Improvement Techniques at Northern Agro Services Ltd: A Case Study

Durlave Roy, PGD Industrial Management, Bangladesh Institute of Management, Bangladesh

ID 1 Landslide Hazard in Chittagong & Chittagong Hill Tracts

Md. Emdadul Hoque and Ahmad Mahir Faysal, IEOM Society International, United States

ID 333 Route optimization in home social care: the case study of Cáritas Diocesana de Setúbal

Mónica Gaboleiro, PhD student in Industrial Engineering, Department of Mechanical and Industrial Engineering (DEMI), NOVA School of Science and Technology, Caparica, Portugal
Maria da Graça Costa, ESCE - Instituto Politécnico de Setúbal, CMAFCIO - Centro de Matemática, Aplicações Fundamentais e Investigação Operacional, Polytechnic Institute of Setúbal (IPS), Setúbal, Portugal
Maria Isabel Gomes, Associate Professor, Department of Mathematics and Center for Mathematics and Applications (Nova Math), NOVA School of Science and Technology, Caparica, Portugal

ID 157 Technology and Sustainable Construction Supply Chains

Nasrah Alarayedh and Ana Lúcia Martins, Iscte - Instituto Universitário de Lisboa (ISCTE-IUL), Business Research Unit (BRU-IUL), Lisbon, 1649-026, Portugal

ID 385 The Load Curve and Load Duration Curves in Generation Planning

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

8:00 – 9:45 am, TUESDAY, July 18

Sustainability

Virtual Room 5

Session Chair: Ivy Mar J. Ramos, Bulacan State University, City of Malolos, Bulacan, Philippines

ID 96 A Systematic Approach for Achieving Zero-Waste of Pharmaceutical Drug Supply Chain

Gülce Karaçay, Industrial Engineering Department, School of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey
Beste Şakar, Industrial Engineering Department, School of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey
Hilal Karagöz, Industrial Engineering Department, School of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey
Özgür Erol Yeşilsirt, Industrial Engineering Department, School of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey

ID 352 Stochastic Cost Modeling for Operator Allocation and Workstation Planning in Manufacturing: Optimizing Resources and Minimizing Costs

Vishad Vyas, PhD Research Scholar at University of Minho - School of Engineering, Braga, Portugal
Paulo Afonso, Assistant Professor in Department of Production and Systems, University of Minho, Braga, Portugal
Lino Costa, Associate Professor in Department of Production and Systems, University of Minho, Braga, Portugal

ID 119 Unrelated Parallel Machine Scheduling for Disposable Medical Face Masks with Machine-Dependent Setup Times, Compatibility, Different Release Times, and Due Dates

Yagmur Selenay Selcuk and Elvin Coban, Department of Industrial Engineering Ozyegin University Istanbul, Turkey

ID 280 Demand-based Street Lights Electrical Consumption Reduction in Industrial Cities Utilizing Internet of Things

Mohammed Alenazi, Prince Sultan University, Saudi Arabia

ID 238 How do Albanian Companies utilize Total Quality Management?

Jonida Teta, Associate Professor in the Department of Production and Management, Faculty of Mechanical Engineering, Polytechnic University of Tirana, Tirana, Albania

Dea Sinoimeri, Researcher in the Department of Production and Management, Faculty of Mechanical Engineering, Polytechnic University of Tirana Tirana, Albania

ID 355 Applications of Drones as operational tools for disaster management

Abdulla Alsulaiti, Qatar university, Qatar

ID 236 System Improvement on Late Delivery Service of Online Delivery Business

Ivy Mar J. Ramos, Faculty at Industrial Engineering Department, College of Engineering, Bulacan State University, City of Malolos, Bulacan, Philippines

Gian G. Cayabyab, Erika Beatrice DC. Garcia, Chabelita B. Pano and John Miguel B. Yandan, Industrial Engineering Department, Bulacan State University, City of Malolos, Bulacan, Philippines

July 18, 2023 (Tuesday) - Session: 10:00 am – 1:00 pm – Onsite Room 1

Keynote Speakers

10:20 Keynote I:

João Paulo Ribeiro

Senior Vice President Operations and Supply Chain, Viston, Portugal

11.00 Keynote II:

Prof. Virgílio Cruz Machado

Director / Dean, Nova School of Science and Technology | FCT NOVA, Universidade NOVA de Lisboa, Caparica, Portugal

11:40 Keynote III:

Dr. Tomohik Sakao

Professor of Sustainable Product/Service Systems, Linköping University, Sweden

12:20 Keynote IV

Vânia Gomes

Director of Quality and Food Safety and Assistant to the production management, Chocolates Excelsior Company, Lisbon, Portugal

1:00 Lunch Break

2:00 pm, Tuesday - Posters

ID 350 Information and Digital Technologies of Industry 4.0 as Enablers of a Sustainable Supply Chain

Lesther Pachely Flores, University of Jaén, Jaén, Spain

Juan Manuel Maqueira-Marín, Department of Business Organization, Marketing and Sociology, University of Jaén, Jaén, Spain

José Moyano-Fuentes, Department of Business Organization, Marketing and Sociology, University of Jaén, Jaén, Spain

Diéssica de Oliveira-Dias, Department of Business Organization, Marketing and Sociology, University of Jaén, Jaén, Spain

ID 161 Leveraging Operations Research to Improve Outpatient Chemotherapy Management: A Data-Driven Research

Majed Hadid, HBKU, Qatar

July 18, 2023 (Tuesday) - Session: 2:00 – 3:45 pm

2:00 – 3:45 pm, TUESDAY, July 18

Onsite Room 1

Dave's "Rolls-Royce" Presentation

2:00 – 3:45 pm, TUESDAY, July 18

Onsite Room 2

Women in Industry and Academia (WIIA) Panel

Panel Chair

Dr. Susana Duarte
 Assistant Professor
 Department of Mechanical and Industrial Engineering
 NOVA School of Science and Technology
 Universidade NOVA de Lisboa
 Portugal

Panel Speaker I

Cristina Barros
 CEO
 SINMETRO Lda
 Leiria, Portugal

Panel Speaker II

Dr. Henriqueta Sousa
 Faculdade de Ciências e Tecnologia
 Researcher, DEMI – Departamento de Engenharia Mecânica e Industrial
 Researcher, UNIDEMI – Unidade de Investigação e Desenvolvimento em Engenharia Mecânica e Industrial

Panel Speaker III

Dr. Eng. Carina Pimentel
 An Industrial Engineering Assistant Professor
 Department of Production and Systems
 University of Minho
 Portugal

2:00 – 3:45 pm, TUESDAY

Onsite Room 3

Undergraduate Student Paper Competition**ID 60 Acoustic Noise Analysis of a 5G Telecom Base Station Design**

Bui Minh Dinh, Vu Tuan Duc, Khong Van Manh, Nguyen Duc Thinh, Nguyen Quoc Hung and Dinh Van Hai, Dept of IDME-VTBR Center, Viettel High Technology Industries Corporation, Hoa Lac Hi-tech Park Hanoi, Vietnam

ID 108 Simulation of the Environmental and Socio-economic Impact from the Lithium Industry within Producing Countries

Carlos D. López, Ma. Fernanda Reyes, Constanza J. Martínez and José D. Morcillo, Ph.D., School of Engineering and Technology, Universidad de Monterrey, Monterrey, Mexico

ID 3 Evaluating the effectiveness on AR filters: The mediating role of technology acceptance, customer satisfaction, loyalty, and behavioral intention

Young Tsz Ting Angela, Au Mei Yan and Luk Kwok To, Department of Industrial and Systems Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, Hung Hom, HKSAR, CHINA
 C.K.M. LEE, Associate Professor, Department of Industrial and Systems Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, Hung Hom, HKSAR, CHINA

Undergraduate Research Competition**ID 4 Study of how the experience and behavior of consumers are affected by user experience (UX) design in the online fashion retailing industry**

AU Mei Yan, YOUNG Tsz Ting Angela and YEH Mau Wong, Department of Industrial and Systems Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, Hung Hom, HKSAR, CHINA
 C.K.M. LEE, Associate Professor, Department of Industrial and Systems Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, Hung Hom, HKSAR, China

ID 106 The role of digital technologies in the development of resilient and sustainable supply chains

Paulo Alexandre Pereira, Full-time Phd student at Iscte Business School, Business Research Unit (BRU-IUL), Iscte - Instituto Universitário de Lisboa Lisboa, Portugal
 Researcher at INESC TEC, Porto, Portugal

Ana Lúcia Martins, Associate Professor in Operations Management at Iscte Business School, Integrated Researcher at Business Research Unit (BRU-IUL), Iscte - Instituto Universitário de Lisboa, Lisboa, Portugal

Ricardo Augusto Zimmermann, Senior researcher at INESC TEC, Porto, Portugal

2:00 – 3:45 pm, TUESDAY

Decision Sciences and OR

Onsite Room 4

Session Chair: Ioannis Tampakoudis, University of Macedonia, Thessaloniki, Greece

ID 109 Artificial Intelligence and AHP for EVs Charging Station Selection Problem

Mohammed Ha. Al Gafri, Graduate Student in the Department of Industrial and Systems Engineering, College of Computing and Mathematics King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

Salih O. Duffuaa, Full Professor in the Department Industrial and Systems Engineering, College of Computing and Mathematics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

Anas Al-Sayed AL-Ghazi, Chairman of the Department Industrial and Systems Engineering, College of Computing and Mathematics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 184 Feasibility analysis considering business friendly policies and factors: An Effective Approach

Ali AlArjani, Department of Mechanical and Industrial Engineering, Prince Sattam Bin Abdulaziz University, AlKharj 11942, Saudi Arabia

ID 277 TOPSIS Method for Selection of the Best Stent Material for Damaged Blood Vessles

Mohammed A. Almomani and Abd Al Azeez M. Melhem, Industrial Engineering Department, Jordan University of Science and Technology P.O. Box 3030, Irbid 2211, Jordan

ID 117 Collaborative Product Development Process with Technology Uncertainty

Conan Mukherjee and Peeyush Mehta, Indian Institute of Management Calcutta, Kolkata, India

ID 124 Two-Dimensional Cutting Problem: Application of Heuristics to Troubleshooting in the Textile Sector

António Teixeira, Diogo Figueiredo and Marco Gonçalves, Master Student in Industrial Engineering and Management, Aveiro University Aveiro, Portugal

Ana Moura, Professor in Industrial Engineering and Management, DEGEIT/GOVCOPP, Aveiro, Portugal

ID 214 Examining the effect of ESG controversies score on mutual fund performance during the COVID-19 pandemic

Ioannis Tampakoudis, Associate Professor, Department of Business Administration, University of Macedonia, 156 Egnatia Street, GR-546 36 Thessaloniki, Greece

Nikolaos Kiosses, PhD in Finance, Department of Accounting and Finance, University of Macedonia, 156 Egnatia Street, GR-546 36 Thessaloniki, Greece

Konstantinos Petridis, PhD candidate, Department of Business Administration, University of Macedonia, 156 Egnatia Street, GR-546 36, Thessaloniki, Greece

ID 386 Solar Energy as a Sustainable Energy for Power Generation

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

Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

2:00 – 3:45 pm, TUESDAY, July 18

Engineering Systems

Virtual Room 5

Session Chair: Lesetja Justice, Consulting Engineering Firm, South Africa

ID 55 Distribution Function Similarity of Commercial Drivers and their Willingness to Take Examinations and Training Courses (Case Study: Iran)

Abbas Mahmoudabadi, Director of Master Program in Industrial Engineering, Department of Industrial Engineering, MehrAstan University, Guilan, Iran

Fatemeh Pourhossein Ghazimahalleh, Graduated Student, Department of Information & Commerce Technology, MehrAstan University, Guilan, Iran

ID 279 Improvement Proposal Using Postural Ergonomics and Engineering Design in An Educational Environment: Case Study

Rafael Chavez, Professor in the Department of Industrial Engineering & Architecture, Universidad de Lima, Lima, Peru

Shirel Pardo, Industrial Engineering Student, Universidad de Lima, Lima, Peru

Maria Lucia Pérez, An Industrial Engineering Student, Universidad de Lima, Lima, Peru

ID 32 Entrepreneurial Ecosystem: Current Status and Developments

Eren Ozgen, College of Business, Florida State University, Panama City, Florida 32405-1099, USA

ID 77 Cable Routing Optimization for Floating Offshore Wind Farms Integrated with Offshore Oil and Gas Platforms Considering Wind Scenarios

Rongsen Jina and Xiaoqiang Caia, The Chinese University of Hong Kong (ShenZhen), PR, China

ID 203 Enhancing the Economic Situation Through the Reuse of Coal Fly Ash (CFA)

Lesetja Justice and Boshomane, Consulting Engineering Firm, South Africa

ID 120 Analyzing Efficiency and Quality of Home Healthcare Services Based on Smart Technology and Sustainable Strategy Applications

Yagmur Selenay Selcuk and Elvin Coban, Department of Industrial Engineering Ozyegin University Istanbul, Turkey

ID 297 Exploitation of the “Persea Americana” Seed for The Elaboration of Bioplastics. A Bibliographical Review

Cabrejos Arellano Karol Jubitza, Wong Wang Alicia and Garcia-Lopez Yvan Jesús, Facultad de Arquitectura e Ingeniería, Universidad de Lima, Lima, Peru

ID 110 Supply Chain Modelling and Production Planning: A Case Study in The Phosphate Industry

Ibtissam GUISSOU, Agnes GORGE, Nizar EL HACHEMI and Michel FENDER, Africa Business School, Mohammed VI Polytechnique university Rabat, Morocco

July 18, 2023 (Tuesday) - Session: 4:00 – 5:45 pm

4:00 – 7:00 pm, TUESDAY, July 18

Onsite Room 1

Six Sigma Certification Workshop

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

4:00 – 5:45 pm, TUESDAY, July 18

Onsite Room 2

Global Supply Chain and Logistics Panel

Panel Chair

António Pita
Transportation and Supply Chain Manager and Consultant
Portugal

Panel Co-Chair

Dr. Helena Carvalho
Associate Professor
Department of Mechanical and Industrial Engineering
NOVA School of Science and Technology
NOVA University Lisbon
Caparica, PORTUGA

Panel Speaker I

Dr. Vitor R. Caldeirinha
Researcher
ESCE, Instituto Polytechnic of Setúbal, Portugal
ENIDH, Oeiras, Portugal

Panel Speaker II

Tarik SAIKOUK Ph.D, HDR (Habil)
Associate Professor of Supply Chain Management
Excellia Business School in La Rochelle
Director of research dissertations in the BBA International program
La Rochelle, France

Panel Speaker III

Inês A. Ferreira
Recent Graduate – Doctoral Program of Industrial Engineering
NOVA School of Science and Technology
Invited Assistant Professor at NOVA School of Science and Technology
Invited Assistant Professor at ISEG (Lisbon School of Economics & Management)
Portugal

4:00 – 7:00 pm, TUESDAY

Onsite Room 3

Graduate Student Paper Competition

ID 98 From Concept to Industry: Implementation of a Capability Roadmap and Strategy Development Towards Quality 4.0

Ana Rita Dias, School of Engineering, ALGORITMI Research Centre/LASI, University of Minho, Braga, Portugal
André M. Carvalho, Assistant Professor, NOVA School of Science and Technology, NOVA University Lisbon, Caparica, Portugal
Pedro Domingues, Principal Researcher, School of Engineering, ALGORITMI Research Centre /LASI, University of Minho, Braga, Portugal
Paulo Sampaio, Associate Professor with Habilitation, School of Engineering, ALGORITMI Research Centre /LASI, University of Minho, Braga, Portugal

ID 57 Investigating the relationship between marketing capabilities and export investment performance: The mediating role of marketing communication and competitive strategy, and the moderating role of technological turbulence

Lean Six Sigma Competition

ID 417 Accident Reduction and Quality Improvement of Bangladesh Ready Made Garments Industry using Lean

Rubana Ahmed, Roshna Ahmed Shipa and Md Amir Uddin, IEOM Dhaka Operations Team, Dhaka, Bangladesh

Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Tech University, Southfield, Michigan, USA

Supply Chain and Logistics Competition

ID 56 A Vendor Managed Inventory Model for a Three-Echelon Supply Chain to Eliminate Demand Uncertainty in The Upstream Echelons

Hamed Tayebi and Majid Khalili, Department of Industrial Engineering, Karaj Branch, Islamic Azad University, Karaj, Iran

ID 197 Process improvement for the manufacture of excavator bucket for a construction equipment manufacturer

M. Mdletshe, Department of Industrial Engineering, Durban University of Technology, South Africa

4:00 – 7:00 pm, TUESDAY

Supply Chain Management

Onsite Room 4

Session Chair: Dennis Chapman, Coventry University, United Kingdom

ID 353 Assessing Supplier Suitability for Leagile Supply Chains: A Multi-Criteria Decision-Making Approach to Enhance Leanness and Agility

Gülçin Büyükközkcan, Professor, Department of Industrial Engineering, Galatasaray University, Ortaköy, Istanbul, Turkey

Deniz Uztürk, Department of Management, Business Research Center, Galatasaray University, Ortaköy, Istanbul, Turkey

ID 37 Port 4.0: Integrating Advanced Technologies to Transform Port Operations

Abdelghani Benayoune, Head of Research and Graduate Studies – IMCO, Professor in the Department of Logistics Management, National University of Science and Technology, IMCO, Muscat, Oman

ID 230 Recent Developments from the Use of Social Network Analysis in Supply Chain Management

Ana Isabel Bento, Carla Cruz, Gabriela Fernandes and Luís Miguel Ferreira, University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering, Polo II, Coimbra, 3030-788, Portugal

ID 59 The Role of Supply Management for Sales and Operations Planning During the Covid-19 Pandemic

Martin Lockstrom and Xi'an Jiaotong, Liverpool University, China

ID 289 The Effectiveness of Smart Transportation Systems in emerging economies: A Case of South Africa

Lawrance Seseni, Department of Business Management, School of Management, College of Business Management, University of Johannesburg Auckland Park, Johannesburg, South Africa

Sebonkile Cynthia Thaba, Department of Transport and Supply Chain Management, School of Management, College of Business Management University of Johannesburg, Auckland Park, Johannesburg, South Africa

Charles Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and Built Environment, University of Johannesburg Auckland Park, Johannesburg, South Africa

ID 40 E-Commence: Visualizing a Growing Future of Tackling the Food Deserts Problem

Henry Washington, Department of Industrial and Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA

Steven Jiang, Department of Industrial and Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA

Lauren Davis, Department of Industrial and Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA

Hyun Nam Kim, Department of Industrial and Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA

4:00 – 5:45pm, TUESDAY, July 18

Engineering Management

Virtual Room 5

Session Chair: Thanh Van Luu, Tomas Bata University in Zlin, Czech Republic

ID 322 Forecasting of ISO 9001 and ISO 14001 Certifications in Bangladesh Through ARIMA Model

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

ID 199 Lean for Sustainability: A Focus on The Preventive Maintenance Process for Construction Equipment

Mohammed Masoud, Abdulla Al-Mohannadi and Batti Al-Naemi, Mechanical and Industrial Engineering Department, College of Engineering, Qatar University, Doha, Qatar

ID 288 Exploring Deep Learning Approaches to Improve Traffic Flow Management and Prediction

Onu Peter and Charles Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, P. O. Box 524, Johannesburg, South Africa

ID 95 Quality 4.0 Trends and Application: A Systematic Literature Review

B.B.S Makhanya, J.H.C Pretorius and H. Nel, Postgraduate School of Engineering Management, Faculty of Engineering and Built Environment University of Johannesburg, Johannesburg, Gauteng, South Africa

ID 364 Quality Control System Applied in Libyan Cement Industry

Ashraf Elalam, School of Applied Sciences and Engineering Department of Mechanical, Industrial Engineering Division of Production Engineering
The Libyan Academy - Tripoli

ID 153 Early Detection of Alzheimer's Disease through Protein Accumulation analyzed in Medical Imaging: A Review
George Pappas, LTU, United States

ID 196 A Typology of Engaging, Gainful (EG) Leadership: Authentic Transformational, Proactive, and Inspirational Causal Factors and Predictors
Wallace Burns, American Military University, United States

ID 36 An Optimization Model for a Retail Distribution Supply Chain Network Design – A Case Study
Thanh Van Luu, Ph.D. Student in the Faculty of Management and Economics, Tomas Bata University in Zlin, Czech Republic
Felicita Chromjaková, Full Professor in the Faculty of Management and Economics, Tomas Bata University in Zlin, Czech Republic

ID 287 Autonomous Vehicle Safety, Security, and Energy Management: A Review, Challenges, and Solutions
Onu Peter and Charles Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, P. O. Box 524, Johannesburg, South Africa

July 19, 2023 (Wednesday)

July 19, 2023 (Wednesday) - Session: 8:00 – 9:30 am

8:00 – 9:40 am, WEDNESDAY, July 19

Onsite Room 1

Global Industry Solutions and Industry 4.0

8:00 – 8:20 am (Wednesday, July 19)

Carlos Guilherme Frias
Innovation Digital Transformation Leader & Product Owner
Millennium bcp
Lisboa, Portugal

8:20 – 8:40 am (Wednesday, July 19)

8:40 – 9:00 am (Wednesday, July 19)

Pedro Paz
Project Manager and Process Optimization – Digital Transformation
The Navigator Company
Lisboa, Lisbon, Portugal

9:00 – 9:20 am (Wednesday, July 19)

Daniela de Almeida
Senior Consultant
Kaizen Institute Western Europe
Trofa, Porto, Portugal

9:20 – 9:40 am (Wednesday, July 19)

Pedro Alexandre Marques
L&D Manager, Hovione
Assistant Professor, Universidade Lusófona de Humanidades e Tecnologias
Lisbon, Portugal

9:40 – 10:00 am (Wednesday, July 19)

ID 361 Exploring the human centricity in Industry 5.0: A Systematic Review
Ifeoma Chukwunonso Onyemelukwe, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT) University of Aveiro, 3810-193 Aveiro, Portugal
Jose Antonio Vasconcelos Ferreira, GOVCOPP, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT) University of Aveiro, 3810-193 Aveiro, Portugal
Ana Luísa Ramos, GOVCOPP, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT) University of Aveiro, 3810-193 Aveiro, Portugal

8:00 – 9:40 am, WEDNESDAY, July 19

Onsite Room 2

Operations Excellence Panel

Panel Chair

Amanda Breeden, MA, MA
Board Member and Director of Communications, Colorado Lean Network
Sr. Director, Office of Research, Denver Health & Hospital Authority

Panel Speaker I

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

Panel Speaker II

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

Panel Speaker III

Luís Gonçalves, MBA
Head of OpEx at Recipharm (Site Lisbon)
Human Change Management Expert
Lisbon, Portugal

Panel Speaker IV

Eduardo Sousa
Operations Excellence
Galp
Lisbon, Portugal

8:00 – 9:45 am, WEDNESDAY, July 19

Industry 4.0

Onsite Room 3

 Session Chair: Francisco Levi de Oliveira Merlo, NOVA School of Science and Technology, Caparica, Portugal

ID 294 A Statistical Analysis and Modeling of the Disruptions of the Digital Revolution and its Impacts on the Evolution of Industry 4.0 and Agile Firms

Mohammad D. AL-Tahat, Industrial Engineering Department, School of Engineering, The University of Jordan, Amman 11942 Jordan

ID 158 Applications of Industry 4.0 in Supply Chain Management: A Systematic Literature Review

Arvin Shadravan and Hamid R. Parsaei, Wm Michael Barnes '64 Department of Industrial & Systems Engineering, Texas A&M University, College Station, Texas, USA

ID 80 Assessing Industry 4.0 Competencies among Engineering Graduates and Industry Practitioners in Morocco: An Empirical Study

 Fatima Ezahra Touriki, LMPEQ, Ecole Nationale des Sciences Appliquées de Safi, Cadi Ayyad University, Marrakech, Morocco
Amine Belhadi, Rabat Business School, International University of Rabat, Morocco

ID 174 Bridging the Digital Divide: “Improving information, communication, and technology (ICT) in Zimbabwe to Spur Economic Development.”

 Hagreaves Kumba, Master of Industry Engineering Student, Faculty of Engineering and The Built Environment, Department of Industrial Engineering Durban University of Technology, Durban, South Africa
Oludolapo Akanni Olanrewaju, Head of Department and Senior Lecturer, Faculty of Engineering and The Built Environment, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa

ID 210 Impact of Quality 4.0 on production performance

 Rabii LATRACH, Advanced Systems Engineering (ISA), National School of Applied Sciences university campus, B.P 241, Kenitra - Morocco
Driss SERROU, Higher Institute of Transport and Logistics, Rue Capitaine Vuillanier - Route de Rabat Quartier Ain Sebaa, Casablanca-MOROCCO
Oussama BOUZAOU, Advanced Systems Engineering (ISA), National School of Applied Sciences university campus, B.P 241, Kenitra - Morocco
LAGRAT Ismaïl, Advanced Systems Engineering (ISA), National School of Applied Sciences university campus, B.P 241, Kenitra - Morocco

ID 267 Industry 4.0 and Its Importance in Statistical Process Control

 Francisco Levi de Oliveira Merlo, Researcher in the Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology Caparica, Portugal
Ana Sofia Leonardo Vilela de Matos, Associate Professor in the Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal

Madalena Sabino Teixeira, Master in Industrial Engineering and Management in the Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal

8:00 – 9:45 am, WEDNESDAY, July 19

Sustainability and Manufacturing

Onsite Room 4

Session Chair: Yiyo Kuo, Ming Chi University of Technology, New Taipei City, Taiwan

ID 265 Drivers and Barriers for Sustainable and Efficient Biomass Valorization Processes

Prabalta Rijal, PhD Candidate at University of Aveiro, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), 3810-193 Aveiro, Portugal

Helena Carvalho, Associate Professor at the Department of Mechanical and Industrial Engineering UNIDEMI, NOVA School of Science and Technology, NOVA University Lisbon, 2829-516 Caparica, Portugal

Laboratório Associado de Sistemas Inteligentes, LASI, 4800-058 Guimarães, Portugal

João Matias, Full Professor at the Department of Economics, Management, Industrial Engineering and Tourism University of Aveiro, 3810-193 Aveiro, Portugal

GOVCOPP R&D Center, University of Aveiro, 3810-193 Aveiro, Portugal

Susana Garrido, Associate Professor at the Faculty of Economics at the University of Coimbra, CeBER R&D Center, 3004-512 Coimbra, Portugal

Dias da Silva 165, 3004-512 Coimbra, Portugal

Carina Pimentel, Assistant Professor at University of Minho, Production and Systems Department and Algoritmi Research Unit, 4800 - 058 Guimarães, Portugal

ID 320 Overcoming 'Jevons paradox' in the circular economy: Is block chain a threat or solution to climate change?

Dennis Chapman and Han Zhang, Coventry University, United Kingdom

ID 285 Smart Cities as a Vehicle to Addressing Sustainable Development Goals in South Africa

Lawrance Seseni, Department of Business Management, School of Management, College of Business Management, University of Johannesburg Auckland Park, Johannesburg, South Africa

Sebonkile Cynthia Thaba, Department of Transport and Supply Chain Management, School of Management, College of Business Management University of Johannesburg, Auckland Park, Johannesburg, South Africa

Charles Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and Built Environment, University of Johannesburg Auckland Park, Johannesburg, South Africa

ID 182 Sustainable Urban Development: A sustainability study of the Dhaka megacity

Kamal and Md Karib Uddin, CEO and Managing Director, Al-Kabid Steel King and Furniture Ltd., Bangladesh

Khan Mohammad Elyas, Sentence Planning Officer, GIZ Bangladesh, Dhaka, Bangladesh

ID 35 Where Is Greenness Made in Product Life Cycle? A Multiperspective Literature Review and Framework for Future Research

Linda L. ZHANG, Full Professor of Operations Management, IESEG School of Management, Univ. Lille, CNRS, UMR 9221 - LEM - Lille Economie Management, F-59000 Lille, France

Shuang MA, Assistant Professor, School of Economics and Management, University of Science & Technology Beijing, Beijing 100083, China

ID 146 CSR performance measurement for manufacturing SMEs

Florentine Esther Mahout Kamte, Anissa Frini, Philippe Kabore and Mehdi Adda, Management science department, University of Québec at Rimouski, Canada

ID 29 A Case Study of Inventory Classification for a Plastic Pallet Manufacturing Company

Yiyo Kuo and Hao-Chen Jiang, Department of Industrial Engineering and Management, Ming Chi University of Technology, New Taipei City, Taiwan

8:00 – 9:45 am, WEDNESDAY, July 19

Operations Research and IoT

Virtual Room 5

Session Chair: Jau-Chuan Ke, National Taichung Institute of Technology, Taichung, Taiwan

ID 207 Application of Quantum Machine Learning Algorithms for Metal Extraction Process Optimisation

M. J. MVITA; N. G. Zulu, Department of Metallurgy, School of Mining, Metallurgy and Chemical Engineering, Faculty of Engineering and the Built Environment, University of Johannesburg, Doornfontein Campus, 55 Beit St, Johannesburg 2028, South Africa

Mineral Processing and Technology Research Centre

B. Thethwayo, Senior Lecturer, Department of Metallurgy, School of Mining, Metallurgy and Chemical Engineering, Faculty of Engineering and the Built Environment, University of Johannesburg, Doornfontein Campus, 55 Beit St, Johannesburg 2028, South Africa

S. Makhamisa, Institute for Intelligent Systems, University of Johannesburg, Johannesburg 2006, South Africa

National Institute for Theoretical and Computational Sciences, Gauteng 2006, South Africa

ID 239 Bibliometric and Narrative Review Analysis of Additive Manufacturing's Impact on Supply Chain Resilience

Mohamed Amjath, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

Laoucine Kerbache, Professor, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar; and HEC Paris

Adel Elomri, Assistant Professor, Division of Engineering Management and Decision Sciences, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ID 63 Remote Fault Diagnosis System based on the Pattern Recognition and Cloud

Amr Mohamed Ali and Yasser Shaban, Department of Mechanical Design Engineering Faculty of Engineering, Helwan University, Cairo, Egypt

ID 328 Assessing the Factors Influencing Internet of Things Adoption in the Freight Transport and Logistics Industry

Binay Kumar Rajak and M Vimala Rani, Vinod Gupta School of Management, Indian Institute of Technology Kharagpur, West Bengal, India

Amit Upadhyay, Department of Management Studies, Indian Institute of Technology Roorkee, Uttarakhand, India
Swagato Chatterjee, School of Business and Management, Queen Mary University of London, London, UK

ID 209 IoT (Internet of Things) in Service Sector

Goknur Arzu Akyuz, Associate Professor in Logistics Management Department, Head of Logistics Management Department, University of Turkish Aeronautical Association, Ankara, Turkey
Dursun Balkan, Associate Professor in Industrial Engineering Department, University of Turkish Aeronautical Association, Ankara, Turkey

ID 356 Role of IOT in Improving Quality in Manufacturing

Hussam Ali AlOthman, Assistant Professor of Industrial Engineering, College of Engineering and Technology, American University of the Middle East, Kuwait
Nagendra N. Nagarur, Christoher M Greene and Mohammad T. Khasawneh, Systems Science and Industrial Engineering Department, State University of New York at Binghamton, Binghamton, NY 13902, USA

ID 66 Machine Learning (ML) in Logistics and Supply Chain Management (SCM)

Duygu Aghazadeh, Lecturer in the Department of Logistics Management, University of Turkish Aeronautical Association, Ankara, Turkey
Goknur Arzu Akyuz, Associate Professor in the Department of Logistics Management, Head of Department of Logistics Management, University of Turkish Aeronautical Association, Ankara, Turkey

ID 286 Unreliable queueing system with working vacation interruption and imperfect coverage under preemptive priority service

Jau-Chuan Ke, Professor in the Department of Applied Statistics, National Taichung Institute of Technology, Taichung 40401, Taiwan
Fu-Min Chang, Professor in the Department of Finance, Chaoyang University of Technology, Taichung 413, Taiwan
Hsin-I Huang, Associate Professor in the Department of Computer Science and Information Engineering, National Taichung Institute of Technology Taichung 40401, Taiwan

ID 422 Centrifugal Pump Fault Diagnosis using a Predictive Maintenance Model

Marialuisa Menanno, Post Doc in Industrial Engineering, University of Sannio, Benevento, Italy
Anita Salsano, PhD student in Information Technologies for Engineering, University of Sannio, Benevento, Italy

ID 53 An Industry 4.0 maturity and readiness for Condition-based maintenance in O&G companies: a Delphi study-based approach for development and validation

Kapila Liyanage, Senior Lecturer in Engineering Management, College of Science and Engineering, University of Derby, Derby, UK
Onyeme Chinedu, Senior Lecturer in Engineering Management, College of Science and Engineering, University of Derby, Derby, UK

July 19, 2023 (Wednesday) - Session: 10:00 am – 1:00 pm

Keynote Speakers

10:20 Keynote V:

António Novais

Managing Director, Palmetal / Thyssenkrupp Portugal, Portugal

11:00 Keynote VI:

Dr. João Matias

Professor, Universidade de Aveiro, Portugal

11:40 Keynote VII:

Dr. Luís Ferreira

Professor, Universidade Coimbra, Portugal

12:20 Keynote VIII:

Dr. Ana Paula Póvoa

Professor, Técnico / Universidade de Lisboa, Portugal

1:00 Lunch Break

July 19, 2023 (Wednesday) - Session: 2:00 – 3:45 pm

2:00 – 3:45, WEDNESDAY, July 19**Onsite Room 1**

**TOYOTA KATA Workshop
The Secret Sauce for Toyota Production System**

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

2:00 – 3:45, WEDNESDAY, July 19**Onsite Room 2**

Sustainability Panel

Panel Chair

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

Panel Speaker I

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

Talk Title: Visibility of GHG emissions in supply chains

Panel Speaker II

Dr. Charles Mbohwa
Stade, Lower Saxony, Germany
Professor Extraordinaire at the Tshwane University of Technology in South Africa
Past Professor and Executive Dean, University of Johannesburg, South Africa
Past Pro-Vice Chancellor Strategic Partnerships and Industrialisation, University of Zimbabwe

Panel Speaker III

Prof. Laoucine Kerbache
Chair of Division of Engineering Management and Decision Sciences
College of Science and Engineering
Hamad Bin Khalifa University
Education City, Qatar Foundation
P.O. Box. 34110. Doha, Qatar

Panel Speaker IV

Dr. Adel Elomri
Division of Engineering Management and Decision Sciences
College of Science and Engineering
Hamad Bin Khalifa University
Education City, Qatar Foundation
P.O. Box. 34110. Doha, Qatar
Bio:

2:00 – 3:45, WEDNESDAY, July 19**Industry 4.0****Onsite Room 3**

Session Chair: Taraa Chaymae, ENSAM School, Moulay Ismail University, Al Mansour, Meknes, Morocco
ID 76 Industry 4.0 and Quality Management Systems: Relationships, Complications and Opportunities

Ali Bastas, Assistant Professor in Industrial Engineering, Department of Industrial Engineering, Eastern Mediterranean University, 99628, Famagusta, North Cyprus via Mersin 10, Turkey

ID 145 Industry 4.0 between what it is and how it is perceived by the SMEs

Ozias Freddy Metohoue, Said Echchakoui and Anissa Frini, Management science department, University of Québec at Rimouski, Canada

ID 58 Robust Supply Chain Design for Highly-Customized Manufacturing

Masoumeh Kazemi Zanjani, Associate Professor, Department of Mechanical, Industrial & Aerospace Engineering, Concordia University, Montreal, Canada

Hooraa Katoozian, PhD Candidate, Department of Mechanical, Industrial & Aerospace Engineering, Concordia University, Montreal, Canada

ID 87 Sustainability of Digital Transformation

Jiri Tupa, Vice-Dean at FEE and COO Research and Innovation Center for Electrical Engineering, Assistant Professor in the Department of Material and Technologies, University of West Bohemia, Pilsen, Czech Republic

ID 61 The Impact of Industry 4.0 on Productivity Growth of the Brick Construction Industry in South Africa

Lucky Makhubedu, University of Johannesburg, South Africa

ID 324 Use of industry 4.0 tools in WIP (Work in Progress) stock management: A Case Study of the Automotive Industry

Taraa Chaymae and Ezzine Latifa, Research Team: Research and Development in Science & Engineering, ENSAM School, Moulay Ismail University, P.O. Box 15290, Al Mansour, Meknes 50000, Morocco

ID 439 Barriers Hindering the Effective Implementation of Industry 4.0 amongst Developing Countries -A Review

Thalente Lungile Nkosi, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, RSA
Morena William Nkomo and Stephan Molusiwa Ramabodu, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, RSA

2:00 – 3:45, WEDNESDAY, July 19**Lean Six Sigma****Onsite Room 4**

Session Chair: Han Zhang, Coventry University, United Kingdom

ID 155 The development of A Lean implementation Roadmap for the mining Sector

Belinda N. Twite and Oludolapo Akanni Olanrewaju, Department of Industrial Engineering, Faculty of Engineering and the Built Environment, Durban university of Technology, Durban, South Africa

ID 194 The development of A Lean implementation Roadmap for the mining Sector

Belinda N. Twite and Oludolapo Akanni Olanrewaju, Department of Industrial Engineering, Faculty of Engineering and the Built Environment Durban University of Technology, Durban, South Africa

ID 81 Using Lean Practices to Overcome Challenges with Improving Warehouse Operations

Diogo Gomes, Master's Student in Management of Services and Technology, Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal
Jamison V. Kovach, PMI Houston Endowed Professor in Project Management, University of Houston, Houston, TX, USA
Teresa Cardoso-Grilo, Assistant Professor at ISCTE Business School, Instituto Universitário de Lisboa (ISCTE-IUL), Business Research Unit (BRU-IUL), Lisbon, Portugal

ID 237 Application of Lean Six Sigma Methodology in Defect Reduction: A Case Study Of Botswana Shade Net Manufacturing Plant

Tirelo O. Pekenene, Tuelomburu S. Mphathiwa, Robert O. K. Monageng, Kobamelo Mashaba, Gandure Jerekias and Venkata Kommula, Mechanical Engineering Department, University of Botswana (UB), Gaborone, Botswana

ID 101 Cobot-Human assembly line balancing problem

Tevhide Altekin and Yossi Bukchin, Tel-Aviv University, Israel

ID 114 Data-driven Process Improvement of a LOCA Dispensing Station in an Optical Bonding Process

Rui Oliveira, ALGORITMI Research Centre, LASI (Intelligent Systems Associated Laboratory), School of Engineering, University of Minho, 4710-057 Guimarães, Portugal

Paulo Sampaio, Industrial Engineering and Management (IEM) R&D Group, ALGORITMI Research Centre, School of Engineering, University of Minho, 4710-057, Braga, Portugal

Júlio Viana, IPC – Institute for Polymers and Composites, Department of Polymer Engineering, LASI (Intelligent Systems Associated Laboratory), University of Minho, 4804-533, Guimarães, Portugal

ID 67 Reducing Inbound Logistics Process Cycle Time Using Lean Six Sigma

Ana Branco, Master's Student in Management of Services and Technology, Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal

Jamison V. Kovach, PMI Houston Endowed Professor in Project Management, University of Houston, Houston, TX, USA

Ana Lúcia Martins, Business Research Unit (BRU-ISCTE), Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal

ID 384 Wind Energy in Sustainable Power Generation and Supply

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

Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

ID 180 Reducing Mobile Phone Repair Cycle Time at A Telecommunications Company Using Lean Six Sigma

Catarina Carvalho, Master's Student in Management of Services and Technology, Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal

Jamison V. Kovach, PMI Houston Endowed Professor in Project Management, University of Houston, Houston, TX, USA

Sofia Kalakou, Business Research Unit (BRU-ISCTE), Iscte – Instituto Universitário de Lisboa, Lisbon, Portugal

2:00 – 3:45, WEDNESDAY, July 19

Virtual Room 1

Industrial Solutions II

Session Chair:

Ts. Dr. Mehran Doulat, Ph.D.

Adjunct Professor & Associate Researcher

Best Practice Improvement Resource (BPIR.com)

The Centre for Organizational Excellence Research (COER)

Massey University, New Zealand

Editorial Board for the International Journal of Industrial Engineering and Operations Management (IJIEOM)

2:00 – 3:00 pm (Wednesday, July 19)

Foad H Khanli

Director of Quality Assurance, Performance and Business Improvement

Amor Health Services, Inc.

Brownsville, Texas, USA

2:00 – 3:45, WEDNESDAY, July 19

Industrial Management

Virtual Room 5

Session Chair: Edgard Calsin, University of Lima, Industrial Engineering Career, Lima, Perú

ID 383 Application of Project & Operations Management Methodologies to Real Time Information Management System For Efficiency In The Mineral Sector

Thakaramahlaha Lehohla, Wits Mining Institute, South Africa

ID 73 Retaining Old Workers and Attracting New Workers in Bangladeshi Garment Industry

A S M Touhidul Islam, Faculty of Industrial Management, University Malaysia Pahang, Lebuhraya Tun Razzak 26300 Gambang, Kuantan, Pahang Darul Makmur, Malaysia

ID 304 Supply Chain Risk Assessment: Literature review and network analysis

Imane Elmouden, Department of research, industrial management & innovation, -Faculty of science and technology-, University Hassan First, Settat, Morocco

Bouchra Lotfi, Full Professor of Industrial Management and Change Management, -University Hassan First-, Settat, Morocco

ID 231 Proposed improvement plan with Lean Manufacturing to increase Productivity in a SME in the textile sector in Peru

Edgard Calsin and Luis Dueñas, University of Lima, Industrial Engineering Career, Lima, Perú

José Antonio Taquíá Gutiérrez, University of Lima, Scientific Research Institute, Industrial Engineering Career, Lima, Perú

ID 69 Choice of Alternative Facilities by Factor Analysis

Hakan Butuner, Assoc. Prof., TED University, Turkey

ID 42 Art Supply Chain and the Economic Sustainability of Contemporary Artists

Zeynep Tosun, Department of Industrial Engineering, Altinbas University, Istanbul, Türkiye

Fikret Korhan Turan, Department of Industrial Engineering, Istanbul Medeniyet University, Istanbul, Türkiye

ID 142 Sensor-Assisted Sustainable Quality Improvement

Ahmet Anil Kaya, Yusuf Eren Kılıç and Özgür Erol-Yeşilsirt, Industrial Engineering Department, School of Engineering and Natural Sciences, Istanbul Medipol University, Istanbul, Turkey

July 19, 2023 (Wednesday) - Session: 4:00 – 5:45 pm

4:00 – 5:45, WEDNESDAY, July 19

Onsite Room 1

**TOYOTA KATA Workshop
The Secret Sauce for Toyota Production System**

DAVE HARRY, a.k.a. "The Process Whisperer®"

Retired U.S. Naval Aviator

CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA

ASQ certified Six Sigma Black Belt and A PMI certified PMP®

4:00 – 5:45, WEDNESDAY, July 19

Onsite Room 2

Global Engineering Education Panel

Panel Chair

Assoc. Prof. Jiri Tupa, PhD.
 Vice-dean for Strategy and Development
 COO of Research and Innovation center for Electrical Engineering
 Faculty of Electrical Engineering | RICE
 University of West Bohemia
 Univerzitni 26, 301 00
 Pilsen, Czech Republic

Panel Speaker I

Professor Min Xie
 Chair Professor of Industrial Engineering
 Department of Systems Engineering
 City University of Hong Kong
 Hong Kong SAR, China

Panel Speaker II

Rita Falcão de Berredo
 Director for Education and International Development
 NOVA University Lisbon
 Portugal

Panel Speaker III

Dr. Bill Williams

Senior Associate Editor at the Journal of Engineering Education
 Associate Editor at the European Journal of Engineering Education
 Adjunct Senior Research Fellow, TU Dublin
 Researcher, CEGIST | Centre for Management Studies of Instituto Superior Técnico, Lisbon, Portugal Moita, Setúbal, Portugal

4:00 – 5:45, WEDNESDAY, July 19

Modeling and Simulation

Onsite Room 3

Session Chair: Hedia Fgaier, Full Sail University, FL 32792, United States

ID 68 Approximating Markov Chains via Weak Perturbation Theory

Badredine Issaadi, Laboratoire LITAN, École supérieure en Sciences et Technologie de l'Informatique et du Numérique, RN 75, Amizour 06300, Bejaia, Algérie

ID 78 Perturbation Bounds for the Stationary Distribution of the Main Multiserver Retrial Queueing System

Nabil Ait Yala, Faculté des Sciences et Sciences Appliquées, University of Bouira, Bouira, Algeria
 Badredinelssaadi, Ecole Supérieure en Sciences et Technologies del'Informatique et du Numérique, Campus Amizour, Bejaia, Algeria
 Karim Abbas, Faculté des Sciences Exactes, University of Bejaia, Bejaia, Algeria

ID 125 An Improved Autoencoder with Dynamic Hidden Layer for Anomaly Detection Monitoring

Haitian Zhang, PhD Candidate in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada
 Hedia Fgaier, Full Sail University, FL 32792, United States and Valencia College, Orlando, FL 32811, United States
 Qinqin Zhu, Assistant Professor in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada
 Ali Ahmadian, Postdoctoral Research Fellow in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada
 Ali Elkamel, Full Professor in the Department of Chemical Engineering, University of Waterloo, Waterloo, Canada

ID 160 Design Validation of Quadcopter Drones Using CAD Simulation - a Project-Based Approach

Akbar Eslami, Professor, Department of Math, Computer Science and Engineering Technology, Elizabeth City State University (ECSU), NC, USA
 Kuldeep Rawat, Professor, Dean at ECSU, School of Science, Aviation, Health, and Technology, NC, United States
 Chandra Asthana, Associate professor, Department of Aviation and Emergency Management, ECSU, NC, United States

ID 31 Experimental Modeling and Simulation of Zero-Surface Temperature of Controlled Water Jet Impingement Cooling System for Hot-Rolled Steel Plates

Thomas Okechukwu, Enugu State University of Science and Technology, Nigeria

ID 139 Modelling, Simulation and Experimental Study of a Hybrid Photovoltaic-Thermal Collector (PVT)

Carlos A. Figueiredo Ramos, CISE – Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P – 6201-001 Covilhã, Portugal
 Polytechnic of Guarda, Guarda, Portugal
 Adérito N. Alcaso, CISE – Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P – 6201-001 Covilhã, Portugal
 Polytechnic of Guarda, Guarda, Portugal
 Antonio J. Marques Cardoso, CISE – Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P – 6201-001 Covilhã, Portugal

ID 154 Redesign of a Mixed Model Assembly Line with Simulation Optimization

Berna Dengiz and Meltem Uzuner, Industrial Engineering Department, Baskent University, Ankara, 06790, Turkey
 Orhan Dengiz, Industrial Engineering Department, Nuh Naci Yazgan University, DWM Technology Company, Kayseri, 38170, Ankara, Turkey
 Merve Bağcı and Sinem Küçük
 Gülin Feryal Can and Burçin Çakır Erdener, Industrial Engineering Department, Baskent University, Ankara, 06790, Turkey

ID 388 Hydropower in the Sustainable Energy Mix

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

4:00 – 5:45, WEDNESDAY, July 19**Reliability and Risk****Onsite Room 4**

Session Chair: Saed Amer, Khalifa University, United Arab Emirates

ID 213 Most Occurred Faults in Chilled Water System: An Empirical Predictive Maintenance 4.0 Study

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

ID 21 Optimal periodicity of inspections in search for hidden failures

Rui Assis, Universidade Lusófona, Portugal

ID 70 Replacement policies based on one cycle criterion

Shey-Huei Sheu, Department of Business Administration, Asia University, Taichung 41354, Taiwan
 Department of Medical Research, China Medical University Hospital, China Medical University, Taichung, Taiwan
 Department of Industrial Management, National Taiwan University of Science and Technology, Taipei 10607, Taiwan

ID 200 Rolling bearing diagnosis approach based on the smartphone's acoustic data

Abdelbaset AIT BEN AHMED, Laboratory of Mechanical Engineering, Faculty of Sciences and Techniques of Fez, Fez, Morocco

ID 115 Turbine Generator Power Plant Reliability for Solar System Improvements

E. Mrukwa, P.S. Pouabe Eboule and J.H.C. Pretorius, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

ID 307 Biological Waste Management for COVID-19 and Future Pandemics: A Holistic Framework

Saed Amer, Khalifa University, United Arab Emirates

ID 54 Development of an Excellence Framework to Improve Quality in Safety Health and Environment Management for Non-Governmental Organisations in Gauteng Province, South Africa

John Mashala, Department of Operations Management, University of South Africa, Gauteng, South Africa

ID 93 Operational Risks Evaluation in Cement Industry using Bayesian Network with Uncertainty

Khaled Ali Abuhasel, Full Professor in Mechanical Engineering Department-Industrial Engineering Program, College of Engineering University of Bisha, Bisha 61922, Saudi Arabia

Mohammed Alquraish, Associate Professor in Mechanical Engineering Department-Industrial Engineering Program, College of Engineering University of Bisha, Bisha 61922, Saudi Arabia

ID 283 The Impact of Occupational Health and Safety (OHS) Inspections and Enforcement Notices on Construction Safety in South Africa

Thalente Lungile Nkosi, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, South Africa
 Stephan Molusiwa Ramabodu and Morena William Nkomo, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, South Africa
 Trynos Gumbo, Department of Urban and Regional Planning, University of Johannesburg, Johannesburg, South Africa

ID 308 The Physical and Mental Effects of Working in a Hybrid Work Environment on an Employee's Well-being and Performance

Saed Amer, Khalifa University, United Arab Emirates

4:00 – 5:45, WEDNESDAY, July 19**Technical Presentations****Online Room 5**

Session Chair: Artur Henrique de Moraes Brito, Universidade de São Paulo, São Paulo, SP, Brazil

ID 318 BOCR-ANP Approach to Research Program Evaluation in Views of Social Effects: A Case Study

Mehmet Kabak, Ezgi Aktas Potur, Hafsa Nur Ozturk, Ahmet Aktas, and Aylin Adem, Department of Industrial Engineering, Gazi University, Ankara, Türkiye

ID 317 3D-Printing Impacts on Türkiye's Defense Industry: A SWOT-based Approach

Nur Sena Ertem, Gizem Gunaydin and Eren Ozceylan, Department of Industrial Engineering, Engineering Faculty, Gaziantep University, Gaziantep, Türkiye

ID 122 Aumann-Shapley Pricing for Airline Baggage Service

Prabhupad Bharadwaj and R K Amit, Decision Engineering & Pricing (DEEP) Lab, Department of Management Studies (DoMS), Indian Institute of Technology Madras, Chennai, India

ID 121 Competencies for Quality Management: A Systematic Literature Review and Perspectives for the Future

Artur Henrique de Moraes Brito and Fernando Tobal Berssaneti, Department of Production Engineering, Universidade de São Paulo, Av. Prof. Almeida Prado, 128, Travessa 2, Cidade Universitária, São Paulo, SP, Brazil

ID 99 From Flexible Manufacturing Systems to Evolvable Production Systems: Literature Review

Hafsa Labbi and Souhail Sekkat, Ecole Nationale Supérieure d'Arts et Métiers, Université Moulay Ismail, Meknès, Morocco

ID 321 Knowledge transfer intention and Personal Traits Knowledge Transfer between Young and Old Employees in an Engineering Company in Cape Town

Bingwen Yan, Assistant Dean at Faculty of Engineering & the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa

Wilson Rendani Maladzhi, Chair of the Department of Mechanical Engineering, College of Science Engineering and Technology, University of South Africa, South Africa

ID 305 Synergistic Applications of Machine Learning and Bioenergy for Environmental Sustainability: A Comprehensive Assessment

Onu Peter, Charles Mbohwa and Anup Pradhan, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, P. O. Box 524, Johannesburg, South Africa

**July 19, 2023 (Wednesday) - Session: 5:30 – 9:00 pm (USA ET)
10:30 pm Lisbon Time Virtual Room 1**

Lean Manufacturing Systems Competition

Judging Committee Chair: Dr. Mizanur Rahman, IEOM Australia

ID 445 The Journey into The Lean at Aetna Bearing Shop-Floor

Ziyad Adnan AL-Kassir and Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 446 Lean Improvements in Design Validation and Part Verification Process

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

ID 447 Applying Lean Principles for Efficient Drive-Through Service

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

ID 448 Implementation of lean tools in a mobile phone manufacturing company: A case study

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

ID 449 Improving order confirmation time and Organizing inventory by using 5S methodology in small business

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

ID 450 Reducing the delivery time of an E-commerce Service using lean methodology

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

ID 451 Implementation of Lean Tools in the Warehouse

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

ID 452 Lean Methodologies for Efficient Household Grocery Shopping

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

ID 453 Application of Lean Systems in a Diamond Manufacturing Industry

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

ID 454 Reducing Non-Conforming Material Reports in SME's using Lean Methodology

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

ID 455 Capacity Loss Mitigation: A Real Time Application of Lean Tools

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

ID 456 Admission Process Improvement in University using Lean Tool

Karthick Raja Nellore Srinivasan and Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 457 Lean Manufacturing Implementation for Quality Inspection Process Improvement at Jay Bharath Maruthi Manufacturing Company

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

ID 458 Streamlining Purchase Orders: Leveraging Lean Tools for Enhanced Efficiency

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

ID 459 Implementation of Value Stream Mapping in Patient Process Flow Improvement in a Medical Industry

Venkata Sai Karthik Saladi and Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 460 Implementation of Lean Methodology in an Industrial Kitchen's Dish Cleaning

Sushil Dev Kumar Sivakumar and Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 461 Lean Application to Generation of True Position Analysis Excel Report

Abdur Rahman Nadeem Syed and Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

July 20, 2023 (Thursday)

July 20, 2023 (Thursday) - Session: 8:00 – 9:45 am

8:00 – 9:45, THURSDAY, July 20

Onsite Room 1

Global Supply Chain and Logistics

8:00 am - 8:20 am (Thursday, July 20)

Ms. Sebonkile Thaba
Lecturer of Supply Chain Management
Department of Transport and Supply Chain Management
University of Johannesburg
South Africa

ID 394 Impact of Blockchain in Enhancing Sustainable Supply Chain Activities Within Enterprises

Sebonkile Thaba, Lecturer for Supply Chain Management, Department of Transport and Supply Chain Management, University of Johannesburg Johannesburg, South Africa
Charles Mbohwa and Nelson Madonsela, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

8:20 am - 8:40 am (Thursday, July 20)

Dr. Palash Dey, CSCM™
Head of Supply Chain Management
Expert in Planning, Sourcing Procurement & Negotiation
Acorn Infrastructure Services Ltd
Ottawa, Ontario, Canada

8:40 am - 9:00 am (Thursday, July 20)

João Pedro Mendes
Head of Procurement for Grids
EDP Global Solutions
Lisbon, Portugal

9:00 am - 9:20 am (Thursday, July 20)

ID 410 Increased Capacity in Industrial Equipment

Inês Pereira Esteves, Masters in mechanical engineering - Industrial Management, School of Engineering Polytechnic of Porto, Porto, Portugal
Marisa João Guerra Pereira De Oliveira, Department of Mathematics of Engineering, School of Engineering Polytechnic of Porto and Associate Laboratory for Energy, Transports and Aerospace (LAETA-INEGI), Porto, Portugal
Maria Teresa Ribeiro Pereira, Department of Mechanical of Engineering, School of Engineering Polytechnic of Porto and Associate Laboratory for Energy, Transports and Aerospace (LAETA-INEGI), Porto, Portugal
Filipe R. Ramos, Department of Statistics and Operational Research, CEAUL-Centro de Estatística e Aplicações, Faculdade de Ciências, Universidade de Lisboa, Lisboa, Portugal

9:20 am - 9:40 am (Thursday, July 20)

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
 Director, Graduate Certificate in Lean Six Sigma
 Coordinator, Siemens Electro-Matic Industrial Engineering Lab
 A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
 Lawrence Technological University, Southfield, Michigan, USA

8:00 – 9:45, THURSDAY, July 20

Onsite Room 2

Industry 4.0 Panel

Panel Chair

Dr. Matteo Mario Savino
 Professor of Industrial Operations and Industrial Management
 University of Sannio
 Benevento, Italy

Panel Speaker I

Diessica de Oliveira-Dias
 Department of Business Organization, Marketing and Sociology
 University of Jaen
 Jaen, Spain

Panel Speaker II

Dr. Vítor Alcácer
 Assistant Professor of Industrial Engineering and Technologies
 Escola Superior de Tecnologia de Setúbal
 Instituto Politécnico de Setúbal
 Portugal

Panel Speaker III

Panel Speaker IV

8:00 – 9:45, THURSDAY, July 20

Operations Research

Onsite Room 3

Session Chair: Shirish D. Chikte, Northwestern University, Evanston, IL 60208, United States

ID 261 A literature review of the effect of productivity improvement systems on productivity growth of the masonry brick construction small and medium scale enterprises in South Africa

Lucky Makhubedu, University of Johannesburg, South Africa

ID 22 A Stackelberg Game for Empty Container Sharing under a Carbon Tax Policy

Hao-Yu Wang and Jing-Xin Dong, Business School, Newcastle University, Newcastle upon Tyne, NE1 4SE, UK
 Dong-Ping Song, Management School, University of Liverpool, Chatham St, Liverpool L69 7ZH, UK
 Dilum Dissanayake, School of Engineering, Newcastle University, Newcastle upon Tyne, NE1 7RU, UK
 Kamran Sarmadi, Business School, University of Greenwich, London, SE10 9LS, UK

ID 97 Cost Reduction of Water Supply Systems Through Optimization Methodologies: A Comparative Study of Optimization Approaches

Marlene Brás, Department of Economics, Management, Industrial Engineering and Tourism, GOVCOPP – Systems for Decision Support Research Group, TEMA - Centre for Mechanical Technology and Automation, University of Aveiro, Aveiro, Portugal
 Ana Moura, Department of Economics, Management, Industrial Engineering and Tourism, GOVCOPP – Systems for Decision Support Research Group, University of Aveiro, Aveiro, Portugal
 António Andrade-Campos, Department of Mechanical Engineering, TEMA - Centre for Mechanical Technology and Automation, University of Aveiro Aveiro, Portugal

ID 90 Designing networks resilient to clique blockers

Foad Mahdavi Pajouh, Stevens Institute of Technology, United States

ID 28 Linear Programming applied to the Vehicle Routing Problem with Simultaneous Delivery and Pickup: A Comparative Study

Bárbara Romeira, GOVCOPP / DEGEIT, University of Aveiro, Portugal
 Ana Moura, Assistant Professor, GOVCOPP / DEGEIT, University of Aveiro, Portugal

ID 25 Optimal Innovation

Shirish D. Chikte and Sudhakar D. Deshmukh, Managerial Economics, Decision Sciences, and Operations, Kellogg School of Management Northwestern University, Evanston, IL 60208, United States

ID 62 Review of Literature: Productivity Improvement Systems in the South African Mineral Exploration Industry

Lucky Makhubedu, University of Johannesburg, South Africa

ID 123 Traveling Salesman Problem: The Efficiency of Simulated Annealing Applied to a Real Case Study

Eva Rodrigues, Cíntia Câmara and Maria Almeida, Department of Economics, Management, Industrial Engineering and Tourism, University of Aveiro, Portugal

Pedro Nunes, TEMA / DEM, University of Aveiro, Portugal

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

8:00 – 9:45, THURSDAY, July 20 Engineering Management and Project Management Onsite Room 4

Session Chair: Edison Atencio, Politecnico di Milano, Via Lambruschini 4b, Bovisa, 20156 Milan, Italy

ID 112 A Study of Identifying the Highly Impact Jobs of Pilgrims' Service Sector in Saudi Arabia

Hatim Bukhari, Assistant Professor in the Department of Industrial and Systems Engineering, College of Engineering, University of Jeddah Jeddah, Saudi Arabia

ID 152 Berth Allocation Problem in Container Terminal TangerMed Morocco

Kissani Ilham, Zine Rabie and Malih Aya, School of Science & Engineering, Al Akhawayn University, 5300, Ifrane, Morocco

ID 172 Optimization of Vehicle Routing Problem with Delivery Systems: OptaPlanner vs Google OR-Tools

Ilham Kissani, Rabie Zine and Abdelaziz Sahel, School of Science and Engineering, Al Akhawayn University in Ifrane, Morocco

ID 83 Developing a Tool for PBO Design and Analysis: An Integration Between Enterprise Architecture and Project Management domains

Edison Atencio and Mauro Mancini, Department of Management, Economics and Industrial Engineering, Politecnico di Milano, Via Lambruschini 4b, Bovisa, 20156 Milan, Italy

Edison Atencio and Guillermo Bustos, Department of Industrial Engineering, Pontificia Universidad Católica de Valparaíso, Av. Brasil 2241, 2340000, Valparaíso, Chile

Edison Atencio, Department of Civil Engineering, Pontificia Universidad Católica de Valparaíso, Av. Brasil 2147, 2340000, Valparaíso, Chile

ID 204 EDM, an Intuitive Approach to Duration Estimation, Duration Control and Risk Management

Homayoun Khamooshi, The George Washington University, United States

ID 150 Managing Large-Scale Software Product Development Projects: A Review

İrem ÜNAL, Marmara University, Institute of Pure and Applied Sciences, Migros Ticaret A.Ş., İstanbul, Türkiye

Alper TÜRKYILMAZ, Marmara University, Institute of Pure and Applied Sciences, İstanbul, Türkiye

Özlem ŞENVAR and Serol BULKAN, Marmara University, Engineering Faculty, İstanbul, Türkiye

ID 118 The Main Causes of Delays in the Projects within the Coal Line Program: A Substations Case Study

Jaffrey Ramphela, Andre Vermeulen and Jan-Harm C. Pretorius, Postgraduate School of Engineering Management Faculty of Engineering and the Built Environment University of Johannesburg, South Africa

ID 393 Geothermal Power Generation Options and Technologies

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

Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

8:00 – 10:00, THURSDAY, July 20 Risk and Occupational Health and Safety (OHS) Virtual Room 5

Session Chair: Mohamed Hasan Saeed Hasan, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia.

ID 300 BNPP Spent Fuel Pool Fire Protection

Shaikh Ali Al Nuaimi, Senior Reactor Operator - Nawah Energy Company Health, Safety and Environment Engineering Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, United Arab Emirates

Abdulla Yousuf Al Marzooqi, Radiation Analyst – ADQCC, Health, Safety and Environment Engineering Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, United Arab Emirates

Abdulaziz A. Al Marzooqi, Reliability Engineer - ADNOC Gas Health, Safety and Environment Engineering, Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, United Arab Emirates

ID 306 Case Study of Potential Hazards of Pb (lead) Lining in Radiation Laboratory on The Employees & Public

Saed Amer, Khalifa University, United Arab Emirates

ID 299 Fire & Explosion Hazards at Gas Turbines in Power Generation Plants

Noora B. Almansoori, Electrical Engineer, Health, Safety and Environment Engineering Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, United Arab Emirates

Jwahir Albreiki and Maryam Alkatheri Health, Safety and Environment Engineering Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, United Arab Emirates

ID 309 Human Failure Due to Stress

Amal Almarzooqi, Saed T. Amer, Arwa Alzubaidi, and Noora AlHosani, Department of Industrial and Systems Engineering Khalifa University, Abu Dhabi, United Arab Emirates

ID 301 Systematic Framework for Industrial Warehouse Fire Management

Areej Bin Amro and Mariam Al Hammadi, Department of Engineering Health, Safety and Environment Khalifa University for Science and Technology Abu Dhabi, UAE

Saed Amer, Senior lecturer at the Department of Industrial and Systems Engineering Khalifa University for Science and Technology, Abu Dhabi, UAE

ID 365 Applying the American Homeland Security Program Concepts in Conflict Countries
Ashraf Elalam, Doctor of Business Administration, University of Potomac – Washington DC, United States

ID 425 Improving Organizational Commitment and Job Satisfaction from the Perspective of Human Resources Management Practices: A Case of Federal Authority for Identity, Citizenship, Customs & Port Security (ICP) UAE
Mohamed Hasan Saeed Hasan and Mohd Yamani Bin Yahya, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia.

July 20, 2023 (Thursday) - Session: 10:00 am – 1:00 pm – Onsite Room 1

Keynote Speakers

10:20 Keynote IX:

Luís Bastos

Digital Industries Country Head, Siemens Portugal
Amadora, Lisbon, Portugal

11.00 Keynote X:

Prof. Jürgen H. Lenz

Research Professor, Augsburg Technical University of Applied Science
Nördlingen, Bavaria, Germany

11:40 Keynote XI:

Luis Lopes Pereira

Country Director, Medtronic Portugal
Lisboa, Lisbon, Portugal

12:20 Keynote XII: Joint Keynote

Pedro Monteiro

Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies,
Founder and Editor, theleanmag, Associate Founder, projectoSONAR, Porto, Portugal

Dave Harry

Retired U.S. Naval Aviator, CEO of Process Whisperer® Consultants LLC
Greeneville, Tennessee, USA

Dr. Tony Prensa, PhD

Chief Executive Officer & Founder, TP Global Business Consulting, LLC
Orlando, Florida, USA

1:00 Lunch Break

July 20, 2023 (Thursday) - Session: 2:00 – 3:45 pm

2:00 – 2:45, THURSDAY, July 20

Onsite Room 1

Project Management Workshop

Leading with Emotional Intelligence: A Seminar for Industrial Engineers

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

2:00 – 2:45, THURSDAY, July 20

Onsite Room 2

Diversity and Inclusion Panel sponsored by Ford Motor Company

Panel Chair

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

Panel Speaker I

Stela Suils Cuesta Shihab
 Diversity, Inclusion & Belonging Consultant
 Founder & DEI Practitioner, Diversitude
 Associate Director of Diversity and Inclusion, CollectiveUP
 Lisbon, Portugal

Panel Speaker II

Manon Rosenboom Alves
 Mentor & Coach EMCC
 Lisboa, Lisbon, Portugal

Panel Speaker III

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

2:00 – 2:45, THURSDAY, July 20

HF and Healthcare

Onsite Room 3

Session Chair: Majed Hadid, Hamad Bin Khalifa University, Doha, Qatar

ID 215 Analysis of the Organ Donation and Transplant Process with Process Mining: Comparing 2021 and 2022 Supply Chain Data in Rio de Janeiro

Rafael Paim and Pedro Senna, Professors in the Department of Production Engineering, Cefet/RJ – Federal Center of Technological Education
 Celso Suckow da Fonseca, GEOS – Group of Operations and Systems Management and Engineering. Av. Maracanã, 229, Rio de Janeiro, Brasil
 Leticia Moura and Amanda Costa, Production Engineering and Management, Researcher from ADOTE – Organ Donation and Tissue Brazilian
 Alliance. Av. Pedro I, 07, Centro – Rio de Janeiro, GEOS - Cefet/RJ Maracanã, Rio de Janeiro, Brasil,
 Alexandre Cauduro, State Transplant Coordinator PET/FES/SES – State Transplant Program, Rio Comprido, Rio de Janeiro, Brasil
 Cláudia Araujo, Head of the Center for Healthcare Studies – CES-COPPEAD, Professor at COPPEAD/UFRJ – Federal University of Rio de Janeiro,
 Ilha do Fundão, Rio de Janeiro, Brasil

ID 143 Outpatient Chemotherapy Process with Home-Based and Mobile Services: A Decision Framework and Operation Optimization

Majed Hadid, Adel Elomri and Laoucine Kerbache, Division of Engineering Management and Decision Sciences, College of Science and
 Engineering, Hamad Bin Khalifa University, Doha, Qatar
 Anas Hamad, Pharmacy Department, National Center for Cancer Care & Research, Hamad Medical Corporation, Doha, Qatar
 Abdelfatteh El Omri, Surgical Research Section, Department of Surgery, Hamad Medical Corporation, Doha, Qatar

ID 102 Categorization of Website Usability Factors

Nevcihan Toraman, Industrial Engineering Department, Faculty of Management, Istanbul Technical University, Istanbul, Turkey
 Cigdem Altin Gumussoy, Industrial Engineering Department, Faculty of Management, Istanbul Technical University, Istanbul, Turkey

ID 259 Impact of Handle Position and Riveting Tools on Vibration and Muscle Fatigue in Riveters and Buckers

Fereydoun Aghazadeh and Vamsi Pusapati, Department of Mechanical and Industrial Engineering, Louisiana State University, Baton Rouge,
 Louisiana, USA
 Lou T. Vi, Deloitte and Touche LLP, Houston, Texas, USA
 Anthony Banks, Lockheed Martin Corporation, Bethesda, MD, USA

ID 33 Clay as Sustainable Building Material and its Applications for the Protection of Built Environment

Muntari, Mudi Yar' adua, Department of Building, College of Environmental Studies, Hassan Usman Katsina Polytechnic, Nigeria,

Windapo, Abimbola Olukemi, Department of Construction Economics & Management, University of Cape Town, South Africa

ID 415 The effects of footwear on Industrial Hygiene

Hour Matar, Graduate research/ Teaching assistant, Engineering systems and management, Khalifa University, UAE
 Mariam Alhammadi, Masters, Khalifa University, UAE
 Khawla Alhosani, Graduate Research/ Teaching assistant, Engineering systems and management, Khalifa University, UAE
 Moza Alhammadi, Graduate Research/ Teaching assistant, Sustainable critical infrastructure, Khalifa University, UAE

2:00 – 2:45, THURSDAY, July 20

Smart Systems, Education and Diversity

Onsite Room 4

Session Chair: Ulpan Tokkozhina, Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal

ID 176 Measuring the Impact of the Women 2 Women Industrial Engineering Mentorship Program using Network Theory

Özgür Erol, Department of Industrial Engineering, School of Engineering and Natural Sciences, Istanbul Medipol University, İstanbul, Turkey
 Selin Su Demirkıran, Department of Industrial Engineering, School of Engineering and Natural Sciences, Istanbul Medipol University, İstanbul, 34810, Turkey

ID 240 Transforming for Sustainability: Total Quality Management and Industry 4.0 Integration with a Dynamic Capability View

Ahmed Baha Eddine Aichouni, Cristovão Silva and Luís Miguel D. F. Ferreira, University of Coimbra, CEMMPRE, ARISE, Department of Mechanical Engineering, Polo II, Coimbra, 3030-788, Portugal

ID 232 Framework for the Tokenization of Digital Art

Beatriz Jesus and Henrique Cunha, Students at FCT NOVA - School of Sciences and Technology, Department of Mechanical & Industrial Engineering, NOVA School of Science and Technology, Caparica, Portugal
 Aneesh Zutshi, Assistant Professor, Department of Industrial Engineering and Management at NOVA University Lisbon, Portugal
 UNIDEMI, Department of Mechanical and Industrial Engineering, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal
 Laboratório Associado de Sistemas Inteligentes, LASI, 4800-058 Guimarães, Portugal

ID 107 Traceability of Fish Products for Downstream Supply Chain Players: Contributions of Blockchain Technology

Ulpan Tokkozhina, PhD researcher and Invited Assistant, Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal
 Ana Lucia Martins, Assistant Professor, Vice-Dean for Teaching and Innovation, Instituto Universitário de Lisboa (ISCTE-IUL), ISCTE Business School, Lisbon, Portugal
 Joao C. Ferreira, Assistant Professor with habilitation, Instituto Universitário de Lisboa (ISCTE-IUL), Information Sciences and Technologies and Architecture Research Centre (ISTAR-IUL), Inov Inesc Inovação—Instituto de Novas Tecnologias, Lisbon, Portugal

ID 392 Geothermal Energy Resources, Exploitations and Applications

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

ID 438 Fourth Industrial Revolution Game Changers: the case of South African tertiary institutions: A Literature review

Thalente Lungile Nkosi, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg. RSA
 Morena William Nkomo and Stephan Molusiwa Ramabodu, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg. RSA

2:00 – 3:45, THURSDAY, July 20

Virtual Room 1

Global Supply Chain and Logistics II
Theme – Strategies to build a more resilient supply chain

Session Chair:

Rajeev Agrawal, Ph.D.
 Associate Professor and PG Coordinator (Industrial Engineering)
 Department of Mechanical Engineering
 Malaviya National Institute of Technology Jaipur
 Fellow of The Institution of Engineer (IEI), India
 Founder Secretary, Indo-US Research Institute for Sustainable Development, JSC
 Innovation Ambassador, MoE Innovation Cell and AICTE

2:00 – 2:20 pm (Thursday, July 20)

Prof. Guilherme F. Frederico
 Professor of Operations, Supply Chain and Project Management
 School of Management
 Federal University of Paraná – UFPR
 Curitiba, Brazil

Title – Supply Chain 4.0

2:20 – 2:40 pm (Thursday, July 20)

Cemalettin Ozturk, PhD
 Lecturer- Logistics & Supply Chain
 Munster Technological University, Cork

Ireland

2:40 – 3:00 pm (Thursday, July 20)

Rajeev Agrawal, Ph.D.
Associate Professor
PG Coordinator (Industrial Engineering)
Department of Mechanical Engineering
Malaviya National Institute of Technology Jaipur
Fellow of The Institution of Engineer (IEI), India
Founder Secretary, Indo-US Research Institute for Sustainable Development, JSC
Innovation Ambassador, MoE Innovation Cell and AICTE

2:00 – 3:45, THURSDAY, July 20**Technical Presentations****Virtual Room 5****Session Chair: Ashraf Elalam, Doctor of Business Administration, University of Potomac – Washington DC, USA****ID 220 Cost-Effective PV System Design Empowered by Mobile-Based Forecasting Application**

Raghd I. Melhem, Engineering Student, Engineering College, University of Science and Technology of Fujairah, Fujairah, UAE
Prof. Ali A. Elnour, The chancellor of USTF, Engineering College, University of Science and Technology of Fujairah, Fujairah, UAE

ID 316 Data Analytics in an Operational System with FMEA in a Healthcare Organization

Kesorn Thongngan, The Cluster of Logistics and Rail Engineering, Faculty of Engineering, Mahidol University, Nakhon Pathom, Thailand
Duangpun Kritchanchai, Mahidol University, Department of Industrial Engineering, Faculty of Engineering, 25/25 Phutthamonthon 4 Road, Salaya, Nakhon Pathom, 73170, Thailand

ID 351 Scientific Production in Sustainable Supply Chains

Mauro Lizot, Assistant Professor in Administration, DAGA Department of General and Applied Administration, UFPR Federal University of Paraná Curitiba, PR, Brazil
Flavio Trojan, Professor in the Electrical Engineering and Production Department, UTFPR Federal Technological University of Paraná, Ponta Grossa, PR, Brazil
Hugo Valadares Siqueira, Professor in the Electrical Engineering and Production Department, UTFPR Federal Technological University of Paraná Ponta Grossa, PR, Brazil
Fernanda Cristina Corrêa, Professor in the Electrical Engineering, UTFPR Federal Technological University of Paraná, Ponta Grossa, PR, Brazil
Paulo Afonso, Professor in the Production and Systems Department, Algorithm Research Center, University of Minho, Guimarães, Portugal

ID 357 World Cup organization as an effective tool to drive Qatar's vision 2030: Sustainability

Abdulla Alsulaiti, Qatar University, Qatar

ID 315 A methodology to analyze production process based on the implementation of a Circular Value Stream Mapping

Florencia Kalemkerian, PhD Student at TECNUN- School of Engineers- University of Navarra, Donostia, Spain
Javier Santos, Full Professor in Industrial Management Department, TECNUN- School of Engineers- University of Navarra, Donostia, Spain
Martín Tanco, Dean of University of Montevideo, University of Montevideo- Faculty of Engineering, Montevideo, Uruguay
Patricia Rogetzer, Assistant Professor at the Industrial Engineering and Business Information Systems Department, University of Twente Enschede, Netherlands

ID 229 Evaluation of Plastic Waste Management Options Using Life Cycle Assessment Approach for a Sustainable Future

Abdulmajeed ALMADHI, Prince Sultan University, Saudi Arabia

ID 421 University youth's vision of crises after their outbreak

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

ID 293 Application of Lean and Six Sigma for Intestinal Obstruction Patients-A Case Study

Deoraj Prajapati, Professor, Department of Mechanical Engineering, Punjab Engineering College (Deemed to be university), Chandigarh, India
Gaurav Suman, Research Scholar, Department of Mechanical Engineering, Punjab Engineering College (Deemed to be university), Chandigarh, India

July 20, 2023 (Thursday) - Session: 4:00 – 5:45 pm

4:00 – 5:45, THURSDAY, July 20**Onsite Room 1**

Innovation and Entrepreneurship Workshop

Speaker: Professor Don Reimer, Adjunct Professor, LTU

4:00 – 5:45, THURSDAY, July 20**Onsite Room 2**

Lean Six Sigma Panel

Panel Chair

Pedro Monteiro

Operational Excellence Manager for Europe, Asia and New Zealand, Allied Motion Technologies
 Founder and Editor, theleanmag
 Associate Founder, projectoSONAR
 Porto, Portugal

Panel Speaker I

Miguel Ribeiro | MBA, LSSBB, Eng. Degree

Entrepreneur, Trainer & Senior Consultant in Strategy and Organizational Excellence
 Lean Six Sigma PgD and Certified Six Sigma Black Belt
 MBA & Organizational Behavior Specialization by Porto Business School
 Materials Engineering | Pre-Bologna Graduate by University of Aveiro
 Porto, Portugal

Panel Speaker II

Bruno Moura

Operational Excellence Director
 Leroy Merlin
 Lisbon, Portugal

Panel Speaker III

Amandine da Eira

Lean Practitioner – CSM® – Operational Excellence – Continuous Improvement – Business Transformation
 Senior Operations Analyst
 Feedzai
 Lisbon, Portugal

Panel Speaker IV

Pedro Sousa

Continuous Improvement Leader
 IKEA Industry
 Paços de Ferreira, Porto, Portugal

4:00 – 5:45, THURSDAY, July 20**Data Analytics and Business Analytics****Onsite Room 3**

Session Chair: Lawrance Seseni, University of Johannesburg, Auckland Park, South Africa

ID 5 A novel framework to conduct sales forecasting and performance assessment for multinational airlines

ChihHsuan Wang, National Yang Ming Chiao Tung University, Taiwan

ID 221 Gap Analysis of Equity, Diversity, and Inclusion in an Organization's Workforce: "Bridging the gap between diverse and non-diverse work environments."

Abedeh Gholidoust, Assistant Professor, University Canada West, Vancouver, British Columbia, Canada

ID 75 Application of Multi-Criteria Decision-Making Methods for Human Resource's Task Scheduling in Multi-Sided Platforms

Zahra Mohammadnazari, Kingston Business School, Kingston University, Kingston Hill, Kingston Upon Thames, London, United Kingdom
 Mohammad Alipour-Vaezi, Department of Industrial and Systems Engineering, Virginia Tech, 250 Durham Hall, 1145 Perry Street, Blacksburg, VA 24060, United States of America
 Mohadese Basirati, Mines Saint-Etienne, Univ Clermont Auvergne, INP Clermont Auvergne, CNRS, UMR 6158 LIMOS, Saint-Etienne, France
 Erfan Hassannayebi, Industrial Engineering Department, Sharif University of Technology, Tehran, Iran

ID 71 Contribution of big data analytics to developing sustainable products

Hamed Gholami, Jocelyn Ke Yin Lee and Khaled Medini, Mines Saint-Etienne, Univ Clermont Auvergne, INP Clermont Auvergne, CNRS, UMR 6158 LIMOS, F - 42023 Saint-Etienne, France
 Ahad Ali, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI, USA

ID 302 The Role of Big Data Analytics in Supply Chain Management for Small Scale Poultry Producers Using Power BI

Lawrance Seseni, Department of Business Management, School of Management, College of Business Management, University of Johannesburg
 Auckland Park, Johannesburg, South Africa
 Sebonkile Cynthia Thaba, Department of Transport and Supply Chain Management, School of Management, College of Business Management
 University of Johannesburg, Auckland Park, Johannesburg, South Africa
 Charles Mbohwa, Department of Quality and Operations Management, Faculty of Engineering and Built Environment, University of Johannesburg
 Auckland Park, Johannesburg, South Africa

ID 414 A Bibliometric Analysis of the Adoption of Big Data Analytics by SMEs

Lawrance Seseni, College of Business and Economics, School of Management, Department of Business Management, University of Johannesburg,
 Auckland Park, South Africa
 Charles Mbohwa and Nelson Sizwe Madonsela, Faculty of Engineering and the Built Environment, Postgraduate School of Engineering
 Management, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa

ID 437 Investigating Challenges Facing the Performance of South African Construction Industry: An Exploratory Study

Maphutha Letsau Khutso and Morena William Nkomo, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, RSA

Stephan Molusiwa Ramabodu, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, RSA

4:00 – 5:45, THURSDAY, July 20**Technical Presentations****Onsite Room 4****Session Chair: Moshe Eben-Chaime, Ben Gurion University of the Negev, Be'er Sheva, Israel****ID 326 2D PSA Video: Protecting Children from Second-Hand Smoke and Third-Hand Smoke**

Myzan Binti Noor and Mohamad Syaziq Bin Shahnasiri, University Kuala Lumpur (UniKL), Malaysian Institute of Information Technology (MIIT), 1016 Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia

ID 140 Exergy Analysis of Aerothermal and Geothermal Heat Pumps in a Critical Environment Application

Pedro Barandier, Alexandre Miranda and Antonio. J. Marques Cardoso, CISE - Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P – 6201-001 Covilhã, Portugal

ID 149 Designing a Charging Network for Electric Vehicles

Meltem Uzuner, Berna Dengiz and İmdat Kara, Industrial Engineering Department, Baskent University, Ankara, 06790, Turkey

ID 217 A Robust Portfolio Rebalancing Model by Considering Fundamental Factors

Fatemeh Rezaei, Department of Industrial and Systems Engineering and Department of Forest Management and Economics, Mississippi State University, Starkville, MS 39759-9542, United States

Mohammadhossein Vafaeikhah, Faculty of Industrial Engineering, K. N. Toosi University of Technology, Tehran, Iran

Amir Abbas Najafi, Full Professor in Industrial Engineering, Faculty of Industrial Engineering, K. N. Toosi University of Technology, Tehran, Iran

ID 144 Identification of Fields of Action for the Integration and Validation of Future-Oriented Customer-Relevant Product Characteristics During the Product Engineering Process

Carsten Thümmel, Stefan Eric Schwarz, Katharina Ritzer, Maximilian Kuebler, Andreas Siebe and Albert Albers, Institute of Product Engineering (IPEK), Karlsruhe Institute of Technology (KIT), 76131 Karlsruhe, Germany

ID 195 Pareto Solutions Resilience

Nuno Costa, Instituto Politécnico de Setúbal, ESTSetúbal; Campus do IPS, Estefanilha, 2910-761 Setúbal

UNIDEMI, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal

João Lourenço, Instituto Politécnico de Setúbal, ESTSetúbal; Campus do IPS, Estefanilha, 2910-761 Setúbal

ID 41 Provide Appropriate Methods for Technology Transfer to Countries with Technological, Political, and Economic Conditions Similar to Iran

Amin Sanaei, School of Management, Economics and Progress Engineering, Iran University of Science and Technology, Tehran, Iran

Kaveh Mohammad Cyrus, Industrial Engineering Faculty, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

Abbas Ahmadi, Faculty of Industrial Engineering and Management Systems, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

Amir Sanaei, Deputy of Research and Technology, Bushehr University of Medical Sciences, Bushehr, Iran

ID 387 Nuclear Power in the Sustainable Energy Transition

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

Oludolapo Akanni Olanrewaju, Industrial Engineering Department, Durban University of Technology, Durban South Africa

4:00 – 5:45, THURSDAY, July 20**Reliability and Maintenance****Online Room 5****Session Chair: Lubna Jahan Joty, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh****ID 151 Analyzing the Competences of Change Managers for Successful Change Management**

Mfundo Nkosi, University of Johannesburg, South Africa

ID 257 A Threshold Based Proactive Maintenance Policy for Multi-Component Systems using DBNs

Demet Özgür-Ünlüakın, Assistant Professor of Industrial Engineering, Faculty of Engineering and Natural Sciences, Işık University, Istanbul, Turkey

Busenur Türkali Özbek, Research Assistant in Industrial Engineering, Faculty of Engineering and Natural Sciences, Işık University, Istanbul, Turkey

ID 156 Assessing the Maintenance Strategies and Techniques Used in South African Power Plants: A Review

Mfundo Nkosi, University of Johannesburg, South Africa

ID 362 Experimental Finalization of a Suitable Tool Nose Radius and Ranges of Cutting Parameters Based on Failure Modes for Accelerated Degradation Testing of Cutting Tools

Monojit Das and V. N. Achutha Naikan, Subir Chowdhury School of Quality and Reliability, Indian Institute of Technology, Kharagpur, India

Subhash Chandra Panja, Department of Mechanical Engineering, Jadavpur University, Kolkata, India

ID 222 Modelling the Degradations and Dependencies of CNC Machines using Dynamic Bayesian Networks

Şimal Ekin Demiral, Research Assistant of Industrial Engineering, Faculty of Engineering and Natural Sciences, Işık University, Istanbul, Turkey

Demet Özgür-Ünlüakın, Assistant Professor of Industrial Engineering, Faculty of Engineering and Natural Sciences, Işık University, Istanbul, Turkey

ID 354 Optimizing Preventive Maintenance Frequency and Duration Using Mathematical Model and Fuzzy Logic in Flour Mills

Lubna Jahan Joty and Md. Abul Hasan, B.Sc. in Industrial & Production Engineering, Bangladesh University of Engineering & Technology Dhaka, Bangladesh

Sultana Parveen, Professor in Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

ID 147 A Detailed Review of Solar Thermal Systems

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

ID 79 Investigation of the Challenges of Data to Promote Long-Term Sustainability in Flood-Prone Communities

Pavithra Rathnasiri, Onaopepo Adeniyi and Niraj Thurairajah, Faculty of Engineering and Environment, Department of Architecture and Built Environment, Northumbria University, Newcastle upon Tyne, United Kingdom

ID 312 Quality, the Configuration of the Inspection System and Resource Requirements

Moshe Eben-Chaime, Department of Industrial Engineering & Management, Ben Gurion University of the Negev, Be'er Sheva, Israel

July 20, 2023 (Thursday) - Session: 7:00 – 10:00 pm

Conference Awards Ceremony and Dinner

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International Journal of Industrial Engineering and Operations Management



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IEOM Student Chapter FCT NOVA, Portugal

Faculty Advisor

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 Caparica, Portugal
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Chapter Officers

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IEOM Student Chapter at Instituto Superior De Engenharia De Lisboa, Lisbon, Portugal

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<http://ieomsociety.org/ieom/isel/>

Faculty Advisor

António João Pina da Costa Feliciano Abreu, PhD
 Associate Professor with Habilitation
 Coordinator of the MSc in Industrial Engineering and Management
 Department of Mechanical Engineering
 ISEL – INSTITUTO SUPERIOR DE ENGENHARIA DE LISBOA
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- João Milheiro
- Carolina Correia
- Pedro Duarte
- Pedro Almeida
- Mariana Gabriel

Planned Activities:

- Alumni Networking.
- Seminar/Webinar
- Workshop: Topics:
 - Supply Chain Management
 - Lean Technology
 - Operation Management
 - Research Methodology
 - Industry 4.0
 - Quality Management
 - Excel
 - Leadership and motivation
- Idea completion
- Case Study Competition
- Community Outreach
- Fund Raising Activities



IEOM Student Chapter at the University of the West of England (UWE), Bristol, UK



IEOM Student Chapter at Turkish-German University, İstanbul, Turkey

Turkish-German University EMK IEOM Student Chapter, İstanbul, Turkey

Faculty Advisor

Assoc. Prof. Yaşanur KAYIKCI

Associate Professor, Industrial Engineering Department
Turkish-German University, İstanbul, Turkey

University or Department Website: <http://www.tau.edu.tr/tr>

Contact: İnci Burcu EMEKSİZ, e170502037@stud.tau.edu.tr

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- Feyza ALAGÖZ

IEOM Student Chapter at University of West Bohemia Faculty of Electrical Engineering, Pilsen, Czech Republic

Faculty Advisor

Dr. Jiri Tupa
Associate Professor
Department of Technologies and Measurement
Vice Dean for Faculty Development
Faculty of Electrical Engineering
University of West Bohemia in Pilsen
Plzen-City, Czech Republic

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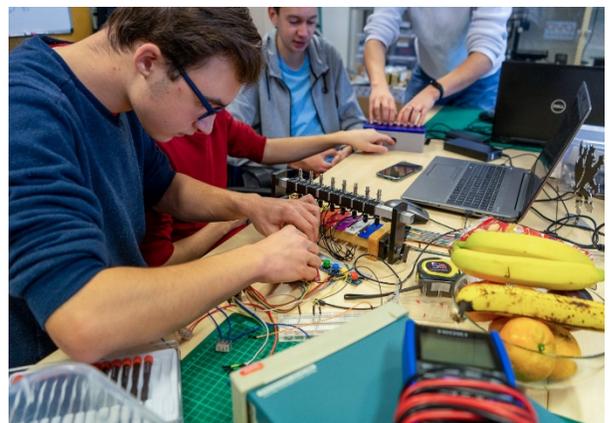
Excursion and Industrial Visits



Workshops



STEM Activities for Schools



IEOM Student Chapter University of Derby, UK

Faculty Advisor

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

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Vehicle Electrification**
October 10-12, 2023
Southfield, Michigan, USA



3rd Indian International Conference on
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Hosts: AMU and DTU



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Operations Management**
Nov. 14-16, 2023, Melbourne
Venue: Batman's Hill Hotel on Collins



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



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



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



9th North American Conference on
**Industrial Engineering and
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Host: University of the District of Columbia (UDC)
Venue: UDC Campus, 4200 Connecticut Ave NW

