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IEOM Society

IEOM Society International
Welcome to Pilsen, Czech Republic & the Third European International Conference on Industrial Engineering and Operations Management, July 23-26, 2019

To All Conference Attendees:

On behalf of the IEOM Society, the University of West Bohemia (Czech Republic), the University of Derby (UK), the University of the West of England (UK) and all the technical sponsors and organising committee, we would like to welcome you to the Third European International Conference on Industrial Engineering and Operations Management (IEOM) in Pilsen, Czech Republic. This unique international conference provides a platform for academics, researchers, scientists and practitioners to exchange ideas to bridge the gap between the Industrial Engineering and Operations Management theory and its application to solve the most current problems and challenges faced by 21st century organizations. The event will also foster networking, collaboration and a joint effort among the conference participants to advance the theory and practice to identify major trends in Industrial Engineering and Operations Management. The conference will also provide the participants with an excellent opportunity to network with leading scholars and practitioners. After a thorough peer review process, about 320 papers/abstracts have been accepted from more than 500 submissions, representing more than 50 countries. The program includes many cutting edge topics on Industrial Engineering and Operations Management.

The main focus of the conference is to explore how the fields of Industrial Engineering and Operations Management may contribute in addressing one of the modern challenges that 21st century organizations are currently facing; i.e. how to effectively adopt Industry 4.0 technologies in their operations and supply chains to gain competitiveness and operate more sustainably. The main theme of the conference is therefore "Industrial Engineering and Operations Management for Industry 4.0". The Third European International Conference on Industrial Engineering and Operations Management will hence promote knowledge and experience sharing between Industrial Engineering & Operations Management experts to address this challenge. Our keynote and distinguished speakers will discuss some of these issues:

- Dipl. Ing. Wolfgang Weisser, CEO Digital Factory & Process Industries and Drives, SIEMENS Czech Republic
- Dr. Jose Luis Guerrero-Cusumano, Associate Professor of Operations and Information Management, Georgetown University, Washington D.C., USA
- Petr Nekolny, VALEO, Nymburk, Czech Republic
- Prof. Ing. Josef Basl, Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Prof. Ing. Josef Basl, Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Dr. Zain Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates
- Prof. Ing. Josef Basl, Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Dr. Seifedine Kadry, Prof. of Applied Statistics, Director of Applied Statistics Center, Coordinator of Continuing Education Program, Beirut Arab University, Lebanon
- Roman Žák, Chairman of the Board, Amttec, Pilsen, Czech Republic
- Ing. Tomáš Vondrák MBA, Plant Manager, Continental Automotive Czech Republic, Brandýs nad Labem
- Dr. Sascha Gierlings, Head of Prototype Manufacturing, Business Development Turbomachinery, Fraunhofer-Institute for Production Technology (IPT), Steinbachstraße, Aachen, Germany
- Ing. Luděk Janík, Ph.D., Director – Eaton European Innovation Center, Eaton Corporation, Prague, Czech Republic

In total, the conference will consist of over 35 track sessions that span from broad areas of the fields of Industrial Engineering and Operations Management and other highly specialised and specific subjects that include:

- Global Engineering Education
- Industry Solutions
- Industry 4.0
- Lean Six Sigma
- Operations Management & Operations Research
- Supply Chain Management
- Logistics, Transport and Traffic Management
- Modelling and Simulation
- Project Management
- Data Analytics
- Engineering Economy, Education & Management
- Automation and Control
- Circular Economy and Computing
- Service Systems and Management
- Manufacturing Design and Intelligence
- Energy and Resource Efficiency
- Operations Management & Production Planning
- Facilities Planning and Asset Management
- Sustainable Manufacturing
- Human Factors and Ergonomics
- Project Management & Knowledge Management
- Inventory, Technology & Information Management
- Waste Management
- Sustainability in Supply Chains and Operations

With the great success of the Global Engineering Education Series of past IEOM conferences, the Third European IEOM Conference in Pilsen, Czech Republic will have a dedicated session to this theme, where distinguished speakers will discuss the readiness of engineering graduates for workforce around the world as well as address engineering education challenges and opportunities. The Industry Solutions track will address current industry needs to survive in the competitive environment. Distinguished practitioners will share their experiences and journey to be successful and address industrial challenges and opportunities for continuous improvement and sustainability. The IEOM Society, the University of West Bohemia, the University of Derby, the University of the West of England and all the technical sponsors and organizing committee would like to express our deepest gratitude to our sponsors, university partners, authors, reviewers, keynote speakers, panel speakers, local committee, and the many volunteers who have given so much of their time and talent to making this unique event an overwhelming success.

We would also like to thank the students who are participating in this event. Our Conference Planning Committee welcomes you to Pilsen and wishes you an enjoyable learning experience at the conference and a safe and fun adventure exploring the Czech Republic and European countries with its many outstanding attractions and sightseeing derived from its multiculturalism. Pilsen is one of the most important industrial cities in the Czech Republic. The establishment of two industrial giants in the late 19th century, Škoda Works and the Pilsner Urquell brewery, brought the greatest renown to the city. Industrial visits to Pilsen Urquell Brewery and laboratories of the University of West Bohemia, BMW in Regensburg (Germany), Siemens digital factory in Amberg (Germany) are planned to be carried out during the third day of the conference.

Pilsen (Plzeň) itself is not only an industrial and higher education center, but also a city with rich cultural traditions and a history of over 700 years. This was recognized by the designation of Pilsen as the “European Capital of Culture 2015”.

Enjoy the conference, and the Pilsen/EU experience.
Biography of the Minister of Industry and Trade

**Doc. Ing. Karel Havlíček, Ph.D., MBA**

He graduated from the Faculty of Civil Engineering of the Czech Technical University in Prague and from the PIBS at the Manchester Metropolitan University. He completed his doctoral studies at the Faculty of Business Administration of the University of Economics in Prague and was habilitated and obtained the Doc. title at the Faculty of Finance and Accounting.

Since the turn of the millennium, he has been defending the interests of entrepreneurs, especially in the position of Chairman of the Board of Directors of the Association of Small and Medium-Sized Enterprises and Crafts of the Czech Republic. As co-owner and CEO of the SINDAT Group, he developed this company into a respected investor in the small and medium-sized industry and new technologies over the past twenty years.

He has been involved in the academic world for many years and, in recent years, has been associated with the University of Finance and Administration, where he built a faculty of economic studies and prepared a study program Economy and Management. He has written several books on the subject of small and medium-sized enterprises and has published dozens of peer-reviewed articles in the Czech Republic and abroad.

He has been a member of a number of advisory bodies of the government and ministries; since 2014 he has been a member of the Government Council for Research, Development and Innovation and since 2018 he has been its Vice-Chairman.

In April 2019, he was nominated by Prime Minister for a post of Deputy Prime Minister for Economic Affairs and Minister of Industry and Trade. On 30 April 2019, he was appointed to both positions by President of the Czech Republic. At the same date, he resigned from the statutory and ownership positions in the business sector and left the management of the Association of Small and Medium Enterprises and Crafts.

He speaks English, German, Russian, Spanish, partly French and Chinese. He is married and has two children.

His hobbies include rock and folk music and occasionally writing columns about world music performers (Pink Floyd, Leonard Cohen, Bruce Springsteen, David Bowie, etc.)
Conference Program

July 22, 2019 (Monday)
13:00 – 20:00 Registration – Foyer Area

July 23, 2019 (Tuesday)
07:00 – 17:00 Registration – Foyer Area
08:00 – 09:30 Parallel Sessions - Breakout Rooms 1-6
09:30 – 09:40 Welcome Address: Dr. Miroslav Holeček, Rector, University of West Bohemia, Pilsen, Czech Republic
10:20 – 11:00 Opening Keynote II: Prof. Ing. Josef Basil, CSc., Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
11:00 – 11:30 Networking Break
11:30 – 13:00 Parallel Sessions – Breakout Rooms 1-6
13:00 – 14:30 Networking Lunch Buffet – Ballroom
13:30 – 14:00 Tuesday Lunch Keynote: Dr. Zain Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates - Industrial Engineering and the Fourth Industrial Revolution: Education and Skills – Ballroom
14:30 – 16:00 Parallel Sessions – Breakout Rooms 1-6
16:00 – 16:30 Networking Break
16:30 – 18:00 Parallel Sessions - Breakout Rooms 1-6
18:00 – 20:00 Sightseeing on your own

July 24, 2019 (Wednesday)
07:00 – 17:00 Registration – Foyer Area
08:00 – 09:30 Parallel Sessions - Breakout Rooms 1-6
09:40 – 10:15 Wednesday Keynote I: Dr. Seifedine Kadry, Professor of Applied Statistics, Director of Applied Statistics Center, Coordinator of Continuing Education Program (CPE), Beirut Arab University, Lebanon – Ballroom
10:15 - 11:00 Wednesday Keynote II: Petr Nekolný, Valeo, Prague, Czech Republic - Ballroom
11:00 – 11:30 Networking Break
11:30 – 13:00 Parallel Sessions - Breakout Rooms 1-6
13:00 – 14:30 Networking Lunch Buffet – Ballroom
13:30 – 14:00 Wednesday Lunch Keynote: Roman Žák, Chairman of the Board, Aimitec, Pilsen, Czech Republic- Ballroom
14:30 – 16:00 Parallel Sessions – Breakout Rooms 1-6
16:00 – 16:30 Networking Break
16:30 – 18:00 Parallel Sessions - Breakout Rooms 1-6
18:00 – 20:00 Poster Session

July 25, 2019 (Thursday)
07:00 – 17:00 Registration – Foyer Area
08:00 – 09:30 Parallel Sessions - Breakout Rooms 1-6
09:30 – 10:00 Thursday Morning Keynote I: Dr. Sascha Gierlings, Head of Prototype Manufacturing, Business Development Turbomachinery, Fraunhofer-Institute for Production Technology (IPT), Steinbachstraße, Aachen, Germany
10:00 - 10:30: Thursday Morning Keynote II: Ing. Tomáš Vondrák MBA, Plant Manager, Continental Automotive Czech Republic, Brandýs nad Labem – Ballroom
10:30 - 11:00: Thursday Morning Keynote III: Ing. Luděk Janík, Ph.D., Director – Eaton European Innovation Center, Eaton Corporation, Prague, Czech Republic
11:00 – 11:30 Networking Break
11:30 – 13:00 Parallel Sessions - Breakout Rooms 1-6
13:00 – 14:30 Networking Lunch Buffet - Ballroom
13:30 – 14:00 Thursday Lunch Keynote: Dr. Jose Luis Guerrero-Cusumano, Associate Professor of Operations and Information Management, McDonough School of Business, Georgetown University, Washington D.C., USA
14:30 – 16:00 Parallel Sessions – Breakout Rooms 1-6
16:00 – 16:30 Networking Break
16:30 – 18:00 Parallel Sessions - Breakout Rooms: 1-6
19:00 – 22:00 CONFERENCE AWARDS DINNER - Ballroom

July 26, 2019 (Friday)
Industry Tours
Tours and Industrial Visits

Tours arranged for 3rd IEOM European Pilsen Conference

July 23, 2019 – Tuesday

- Pilsen city tour, 6.30pm - 7.30pm
- Dinner at Pilsner Urquell brewery from 7.30pm (price for the dinner is 15 Euro)

Industrial trips:

July 24, 2019 - Wednesday

Excursion to Siemens Electronics Factory in Amberg / Germany - The "Digital Factory" – 2pm – 8pm

The cost of the trip is 15 Euro

July 26, 2019 - Friday

- Excursion to the University of West Bohemia and Pilsner Urquell Brewery (production and logistics ) – 9am – 3pm
- Excursion to BMW group plant in Regensburg / Germany - 8.30am – 3pm

The cost of the trip is 15 Euro

For Family Members: (if you are interested, please let us know) – the price will be calculated later based on interest

- July 23, 2019 - Tuesday - Trip to spa cities - Marianske Lazne and Karlovy Vary (all day)
- July 24, 2019 - Wednesday - Trip to capital city - Prague (all day)
- July 25, 2019 - Thursday- Trip around Pilsen (all day)

Registration Form for Tours and Industrial Visits: [http://www.ieomsociety.org/tour-registration-pilsen.pdf](http://www.ieomsociety.org/tour-registration-pilsen.pdf)

Please send your tours and industrial visit registration form to pangraci@rice.zcu.cz

You can pay onsite for tours and plant visit. However, you must submit your registration form as soon as possible, but no later than June 30, 2019.

If you have any questions about tours and plant visits, please contact:

Dr. Jiří Tupa
Conference Co-Chair and Chairman of the Organizing Committee
Vice Dean for Strategy and Development
Faculty of Electrical Engineering
University of West Bohemia, Pilsen, Czech Republic
E-mail: tupa@ket.zcu.cz, Phone: +420 3776345 008
Keynote Speakers

9:30 am, Tuesday, July 23, 2019 – Welcome Address

Dr. Miroslav Holeček
Rector
University of West Bohemia
Pilsen, Czech Republic

Associate Professor Dr. Miroslav Holeček graduated from the Faculty of Mathematics and Physics of Charles University in Prague. He obtained his doctorate from the University of West Bohemia in Pilsen in the field of mechanics and he was appointed Associate professor in the same field. He started as a researcher at the Škoda Pilsen Research Institute, and in 1996 he moved to the University of West Bohemia in Pilsen, where he teaches subjects focused on physics and mechanics. Since 2007, he has been the Director of the New Technology Research Center. Since 2015 he has been the rector of the UWB.

9:40 am, Tuesday, July 5, 2019 – Opening Keynote

Dipl. Ing. Wolfgang Weissler
CEO Digital Factory & Process Industries and Drives
Siemens Czech Republic

Wolfgang Weissler started working for Siemens in 1986, right after graduating from University Erlangen as Electrical Engineer in Drives Technology. Since that time, he worked in different managerial roles across the world – as a CRM Director in the USA, General Manager Electrical Drives in Australia, Head of Business Development Large Drives in Germany and Head of Division Drive Technologies in India.

Since October 2014 his responsibility is leading Siemens divisions Digital Factory & Process Industries and Drives in the Czech Republic. He has a professional interest in digitization and Industry 4.0 and made several presentations and keynote speeches on conferences.

10:20 am, Tuesday, July 23, 2019 – Opening Keynote II

Prof. Ing. Josef Basl, CSc.
Department of Industrial Engineering and Management
Faculty/Institute of Faculty of Mechanical Engineering
University of West Bohemia, Pilsen, Czech Republic

Evaluating Company Readiness in the Context of Industry 4.0

Prof. Josef Basl works at the Department of industrial engineering and management at the Faculty of mechanical engineering at University of West Bohemia in Pilsen. His research area is focusing on enterprise information systems, business process optimisation and industry 4.0 readiness. He is the president of the Czech Society for Systems Integration. He is author many publication in international journals and books. He has completed several foreign internships in Poland, Germany, the UK and the USA. He is a member of several scientific councils, doctoral degree programs, a member of the program committees of several major conferences. Abstract: The contribution deals with the analysis of available readiness indexes and maturity models for Industry 4.0. The main goal is to determine the extent to which these models and indexes are able to show a company's readiness, primarily within the countries of Europe.

1:30 pm – 2:00 pm, July 23, 2019 – Tuesday Lunch Keynote

Dr. Zain Tahboub
Chief Advisor, Dubai Aviation Engineering Projects
Dubai, United Arab Emirates

Industrial Engineering and the Fourth Industrial Revolution: Education and Skills

Dr. Zain E A M Tahboub has been the Chief Strategist and Advisor since 2018 for Dubai Aviation City Corporation, in addition to his work for Dubai Aviation Engineering Projects for the last years as Chief Advisor. He has been managing different functions including Research, Knowledge Management, Future Foresight, Innovation, Excellence, Strategy and others. Dr. Tahboub was known for his work with academia, industry and business. He led corporate development program for major organizations, establishment of new entities, putting forward and contributing to national strategies in the fields of aviation, competitiveness, investment, logistics and most of all Dubai Plan 2021. He has established the DAEP Innovation team and more recently advises the new team on Future of Things (Aviation). In academia, he was one of the four founding members of the Industrial Engineering Program at the University of Jordan, led the Engineering Management Master of Science program for 10 years, directed the office for outreach to industry and was the Dean of Majan University College in Oman. Currently, he serves on a number of boards in academia and is still active in establishing new fronts of collaboration in academic research with University of Sharjah UoS, Linköping University in Sweden, American University of Sharjah AUS and British University in Dubai BUd.
9:40 am – 10:20 am, July 24, 2019 – Wednesday Morning Keynote I

Dr. Seifedine Kadry
Professor of Applied Statistics
Director of Applied Statistics Center
Coordinator of Continuing Education Program (CPE)
Beirut Arab University
Lebanon

Dr. Seifedine Kadry received in 2007 the Ph.D. degree in Computational and Applied Mathematics from the Université Blaise Pascal (Clermont-II) - Clermont-Ferrand in France, and completed in 2013 the Higher Doctorate in research from INSA university, France. Currently, he is a Professor with Beirut Arab University, Lebanon. His research focuses are system prognostics, stochastic systems, and probability and reliability analysis. In addition, he serves as Editor-in-Chief of the Research Journal of Mathematics and Statistics and the ARPN Journal of Systems and Software, as well as an IET Fellow and IEEE Senior Member. He has published many books and more than 90 papers on applied math, reliability analysis, and stochastic systems in peer-reviewed journals and conference proceedings. He is an ABET program evaluator.

10:20 am – 11:00 am, July 24, 2019 – Wednesday Morning Keynote II

Petr Nekolný
Simulation Department, Laboratories and Product Engineering
Valeo
Prague, Czech Republic

"Thermal Management Challenges for Next Generation of Electric Vehicles"

1994 – 2000
Czech Technical university in Prague, Czech Republic, Faculty of Mechanical engineering in field of Thermodynamics and applied mechanics

1996 to 2000: Techsoft Engineering s.r.o. as customer support engineer for 1D CFD simulation software
2001 – 2003: Temac a.s. - R&D Manager for industrial gasket development
2003 – Presence: Valeo Autoklimatizace k.s. on different position in simulation department, laboratories and product engineering.

1:30 pm – 2:00 pm, July 24, 2019 – Wednesday Lunch Keynote

Roman Žák
Chairman of the Board
Aimtec
Pilsen, Czech Republic

Roman Žák graduated from the University of West Bohemia with specialization in Technical Cybernetics. After his studies, he joined a small Pilsen company as a developer and later worked for Deloitte, where he met Jaroslav Follprecht. In 1996, they founded Aimtec specializing in consulting and software solutions for manufacturing and logistics companies. As Chairman of the Board, he is the bearer of the company's vision and strategy.

9:30 am – 10:00 am, July 25, 2019 – Thursday Morning Keynote I

Dr. Sascha Gierlings
Head of Prototype Manufacturing, Business Development Turbomachinery
Fraunhofer-Institute for Production Technology (IPT)
Steinbachstraße, Aachen, Germany

Digitization and 5G

Dr.-Ing. Sascha Gierlings, born in 1981, studied mechanical engineering with a focus in production technology at RWTH Aachen University. He did his Diploma-degree within a project working in Shanghai/ China between 2006 and 2007. From 2008 to 2015 he was research associate at the Laboratory for Machine Tools and Production Engineering (WZL) in the department for process and product monitoring. His research focus was in the field of process monitoring for safety-critical aero engine components. In 2015 he published his dissertation “Model-based Temperature Monitoring for Broaching Safety-Critical Aero Engine Components”.

Since August 2015 he is working for the Fraunhofer-Institute for Production Technology (IPT) where he is leading the department for prototype manufacture and he is responsible for the business development turbomachinery. Since the beginning of 2019 he is responsible for the entire Business Division Turbomachinery at the Laboratory for Machine Tools and Production Engineering (WZL) and Fraunhofer-Institute for Production Technology (IPT) in Aachen. Besides the development of advanced manufacturing technology solutions Dr. Gierlings together with his team are strongly focusing on digitalization strategies as an enabler for next generation aero engine components. A further field of work focuses on the interdisciplinary exchange with the component designers and disciplines such as aero dynamics and structure mechanics with the aim to discuss and iterate future components that have the highest possible performance in terms of producibility, functionality and efficiency in operation.
Ing. Tomáš Vondrák MBA
Plant Manager
Continental Automotive Czech Republic, Brandýs nad Labem

Being a graduate of University of West Bohemia in Pilsen, Tomáš Vondrák started his career in Continental Automotive Brandýs nad Labem in 2006. After three successful years as Business Development Project Manager, he accepted a management position for New Product Launch team in one of Brandýs’ Focus Factories. His further career steps led first to Business Unit Infotainment & Connectivity (BU IC) headquarters in Germany where he assumed responsibility for Supplier Quality Management on Business Unit level, and after that to one of Continental’s manufacturing plants in Mexico. He completed a full circle and returned to Brandýs in 2017 as Head of Focus Factory for BU IC. In March 2019 he became Plant Manager for Continental Automotive in Brandýs nad Labem, one of the biggest Automotive plants within Continental worldwide.

As a manufacturing plant with everyday operational challenges, Continental Automotive Brandýs nad Labem is taking advantage of Industry 4.0 technologies in many areas. Automation, digitalization, cobotization, predictive maintenance, paperless work environment – these are just a few examples of what Tomáš and his team are currently working on. In his key note, Tomáš will focus on the topic of operational excellence to give you an insight in Continental Automotive’s approach.

Ing. Luděk Janík, Ph.D.
Director – Eaton European Innovation Center
Eaton Corporation, Prague, Czech Republic

Luděk Janík has been focusing his whole professional career on the Innovation and Development. He graduated at the Technical University in Ostrava as a Chemical Engineer, studying the Polymer Electrolyte Fuel Cells and continued with Ph.D. in the area of Inorganic Technology at the Chemical Institute in Prague. Starting his career in the chemical laboratory, producing advanced radio pharmaceutics, he realized that his passion is in the combination of electrochemistry and transportation. He utilized his passion at the Nuclear Research Institute REZ (UJV Rez), where he was responsible for the Hydrogen Technologies. The most visible outcome from that timeframe was the development – and later test operation – of hydrogen triple hybrid bus (TriHyBus) and hydrogen filling station. During that time, he also led the Czech Hydrogen Technology Platform. Later, he became responsible for the development of the new Electro Deionization Module (ED1) at the MemBrain (MEGA) company. In the last 7 years, he has been working at the Eaton Corporation at the Eaton European Innovation Center in Prague. Starting in the Vehicle group, developing new technologies within the Engine Air Management team, he then became responsible for the whole site as an EEIC Director.

Dr. Jose Luis Guerrero-Cusumano
Associate Professor of Operations and Information Management
McDonough School of Business, Georgetown University, Washington D.C., USA

Jose-Luis Guerrero-Cusumano holds a Ph.D. in Industrial and Mechanical Engineering from the University of Illinois and a Master of Sciences in Statistics from the Mathematics Department of the University of Illinois. He is also an Economics Statistician from the School of Economics Science, Rosario University, Argentina. Jose-Luis Guerrero-Cusumano is a Tenured Associate Professor at the Georgetown University School of Business. Professor Guerrero-Cusumano has been a member of the faculty at Georgetown since 1989 in the School of Business. He is also the recipient of the Gold Medal for service at Georgetown University. Professor Guerrero-Cusumano was the Academic Director of the Corporate International Master’s at the Georgetown University School of Business (2012-2017). He is former co-Director of the International Institute on Government, Management, and Policy at Georgetown University. In 2008, Professor Guerrero-Cusumano was awarded an Honorary Doctorate, Doctor Honoris Causa in Administration by Ovidius University (Romania). Also in 2008, he was elected Fellow at the Judge Business School, Cambridge University, England. In 2017, he was recognized by the International Institute for Applied Knowledge Management with the Fellow & Distinguished Scholar Award. Among his research areas are Big and Small Data, Data Mining, Text Mining, International Business, Social Responsibility, Business Forecasting, Six Sigma and Quality Improvement.

In 2017, he was the Co-Chair of the international conference on Responsible Organizations in the Global Context. He was also the Deputy Director and Executive Editor of the journal Globalization, Competitiveness and Governability, Spain, 2007-2011. Dr. Guerrero-Cusumano has published over fifty articles in leading journals. Prof. Guerrero-Cusumano has been a member of the faculty at Georgetown since 1989 in the School of Business. He is also the recipient of the Gold Medal for service at Georgetown University. Professor Guerrero Cusumano was the deputy director and Executive Editor of the journal Globalization, Competitiveness and Governability, Georgetown U-Universia, Spain, 2007-2011. Professor Guerrero-Cusumano was also the Vice-president of the Latin American Foundation for Quality and he is also a founding member of The Multinational Alliance for the Advancement of Organizational Excellence (MAA OE). In February 2004, he was the technical chairperson for the 3rd Latin American Quality Conference held in Managua, Nicaragua. He was also a member of the International think Tank on Quality and Social Responsibility for the American Society for Quality.

He won the Belgian-American foundation research grant 1995, and spent Spring 1995 as a visiting professor at Institut d’Administration et de Gestion (IAG), Université Catholique de Louvain, Louvain-La-Neuve (Belgium) and at Vesalius College (Vrije Universiteit), Brussels. In the fall 1997, Professor Guerrero-Cusumano spent his sabbatical year at Ghent University (The Vlerick School of Business), Ghent, Belgium as an invited professor, where he researched European Quality Certifications for Academic Institutions. In spring 2006, he was invited by Escuela Superior de Administración y Dirección de Empresas (ESADE) in Barcelona, where he spent part of his sabbatical. Professor Guerrero-Cusumano has also lectured widely internationally. He is also a researcher at “Laboratoire de Recherche en Management” (University of Versailles, France) in the area of Comprehensive Management, Quality and Innovation. He has lectured at European Quality Master Program system (Versailles University, France; University of Limerick, Ireland; Tor Vergata University, Rome, Italy; University of Piraeus, Athens, Greece; Universidad Complutense, Madrid, Spain).
the Master of Total Quality Management (Vaxjo University, Vaxjo, Sweden), the Master of Quality Management (Hebrew University, Jerusalem, Israel), and the Master of Industrial Engineering (Ghent University, Ghent, Belgium) as an invited professor.

Dr. Guerrero-Cusumano was an examiner for the American National Science Foundation in the areas of “Transformations to Quality Organizations Program”, the “Production and Operations Research Program” and “the Innovation and Organizational Change Program”. Also, Professor Guerrero-Cusumano served as an examiner for the American National Research Council in the area of Benchmarking and for Institute of International Education. Internationally, Professor Guerrero-Cusumano was an examiner for the European Foundation for Quality Management (E.F.Q.M.). He is a member of the Consumer Interest Forum of the American National Standards Institute.

He has been an external judge for several Ph.D. thesis defenses for prestigious international universities as well as a reviewer for many publications such as Management Science, the Journal of Multivariate Analysis, Information Sciences, etc. Professor Guerrero-Cusumano has been a plenary speaker in many conferences around the world and has appeared repeatedly in the media, such as America’s Voice, French TV5, National Public Radio, the international Spanish channel Univision, the Voice of America and CNN international and Jim Lehrer’s News Hour. He speaks seven languages fluently (Dutch, English, French, German, Italian, Portuguese, and Spanish).

### Submissions Received from Countries and Territories

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**Powering Engine and Drivetrain Solutions**

**Continuous Innovation**

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

[www.eaton.com](http://www.eaton.com)
**14th IEOM Global Engineering Education**

**DISTINGUISHED SPEAKERS**

**Tuesday (July 23, 2019)**

**Session I: Global Engineering Education (Room 1) - 8:00 – 9:30 (Tuesday)**

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

8:00 – 8:30 (Tuesday) – Room 1

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

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing from Indian Institute of Technology Indore, India in 2014. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. He has authored several SCI/ISI Journal and International Conference articles. He also authored and edited 10 international books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing, and sustainable manufacturing with the renowned international publishers.

Kapil Gupta has also successfully guest edited special issues of a Scopus indexed journals and he is currently editing a series of handbooks on Advanced Manufacturing as a series editor. He is a recognized reviewer of many international journals and in the advisor/technical committees of international conferences. He has also delivered invited speeches in international conferences and symposiums, and seminar talks at international universities. Kapil Gupta is a NRF [National Research Foundation] rated Researcher in South Africa. Currently, he is supervising 8 Masters and 4 Doctorate students who are busy conducting research in advanced manufacturing and industrial engineering fields. Dr. Gupta is also conducting research in teaching & learning in higher education (HE) scenario along with doing his PG Diploma in HE. He is working on implementation of innovative teaching techniques for the enhanced learning of the students. Recently, he also developed a manufacturing engineering virtual lab.

8:30 – 9:00 (Tuesday) – Room 1

**D. Sujitha Juliet, Ph.D.**  
Assistant Professor, Department of Computer Science and Engineering  
Karunya Institute of Technology and Sciences, Coimbatore, India

Presentation Title: 3N Coordinates of Accreditation of Engineering Education

Dr. D. Sujitha Juliet is currently an Assistant Professor with the Department of Computer Science and Engineering, Karunya Institute of Technology and Sciences, India. She holds a Ph.D. in Information Technology from the same Institution. She has over 15 years of experience in teaching and has several international publications to her credit with research interest in Medical image processing, Telemedicine and Machine learning. In addition to academic work, Dr. Juliet has also been the member of Quality assessment and assurance team, with 3-years of experience as a Coordinator for Internal Quality Assurance Cell of Karunya Institute of Technology and Sciences. Her active contributions for Quality assurance Cell consist of Ranking, Accreditation and Higher education Quality assurance and reforms.

9:00 – 9:30 (Tuesday) – Room 1

**M Chairul Basrun Umanailo**  
Department of Agricultural and Forestry  
Universitas Iqra Buru, Namlea, Maluku 97571, Indonesia

M Chairul Basrun Umanailo is a lecturer at the agriculture Faculty of Iqra Buru University with rural sociology specifications and research methodology. It has a M.Si degree in Sociology sciences obtained from Sebelas Maret University. Nowadays while completing the dissertation about the problem of urbanisation due to the development of the village focused on the Central Java area.

**ID 571 Utilization of Qualitative Methods in Research Universities**

M Chairul Basrun Umanailo and Iskandar Hamid, Universitas Iqra Buru, Department of Agricultural and Forestry, Namlea, Maluku 97571, Indonesia  
Hamiru Hamiru, Universitas Iqra Buru, Department of Economy, Namlea, Maluku, Indonesia  
Sjaid S Fais Assagaf and M Bula, Universitas Iqra Buru, Department of Engineering, Namlea, Maluku, Indonesia  
Mansyur Nawawi, Sukainap Pulhehe and Salma Yusuf, Universitas Iqra Buru, Department of Law, Namlea, Maluku, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

9:30 am - **Welcome Address:** Dr. Miroslav Holeček, Rector, University of West Bohemia, Pilsen, Czech Republic

9:40 am - **Opening Keynote I:** Dipl. Ing. Wolfgang Weissler, CEO Digital Factory & Process Industries and Drives, Siemens Czech Republic

10:20 am (Tuesday) **Opening Keynote II:** Prof. Ing. Josef Basil, CSc., Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
Dr. Vinayak A Drave
Senior Research Fellow
Department of Industrial & Management Engineering
Indian Institute of Technology (IIT)
Kanpur, India

Engineering Education in India

Vinayak A Drave is a Senior Research Fellow and pursuing PhD in the Department of Industrial & Management Engineering, Indian Institute of Technology (IIT) Kanpur, INDIA. He is a management graduate specialized in the field of Operations and Human Resource, and has Bachelor of Science in Mathematics. He has published ten research papers in Scopus indexed international conferences and has published a case study with Ivey Publishing featured in Harvard Business Publishing. He has published two research papers in a journal of international repute and have authored one magazine article related to his doctorate thesis. He also received Best Creativity Award in the fully sponsored ‘Startup Starts Now! 2018’, Entrepreneurial Camp organized by Ministry of Education, Taiwan.

Dr. Galal M. Abdella
Assistant Professor, Mechanical and Industrial Engineering Department
College of Engineering
Qatar University, Doha, Qatar

Engineering Education in Qatar

Galal M. Abdella is an assistant professor at the Mechanical and Industrial Engineering Department in the College of Engineering, Qatar University. He was awarded his Ph. D. degree in Industrial and Systems Engineering from Wayne State University, Michigan-USA. Dr. Abdella is the founder of the professional IEOM chapter in Qatar. His research area has always been centered on utilizing mathematics and advanced statistical data analysis for high-dimensional data processing, modeling and simulating rare events, quality data modeling and analysis, and project resource management. Dr. Abdella has significantly participated, as a member of the organizing committee or a speaker, in several workshops and forums on strategic topics related to transportation and road safety.

ID 271 Prevalence Study of Lean Management in Academic Education

Patrick Pötters, Christoph Szedlak and Bert Leyendecker
Faculty of Operations Management
University of Applied Sciences Koblenz, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

Prof. Dr. Bert Leyendecker is Professor of Operations Management and Project Management at the University of Applied Sciences Koblenz, Faculty of Operations Management, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

Patrick Pötters, M.Sc. M.Eng. is Project Manager of the Model Factory Koblenz and Visiting Professor at University of Applied Sciences Koblenz, Faculty of Operations Management/ Germany. He is a certified Senior Lean Expert as well as Six Sigma Black Belt. Furthermore, he is working in different consultancy projects, especially lean six sigma implementations. His research focus is on process optimization methods on the shop floor, lean six sigma and quality management.

Christoph Szedlak, M.Sc. is Digitalization Coordinator at the University of Applied Science Koblenz. He is a certified Project Manager working in different consultancy projects and as a project manager for IT. His research focus is on process optimization, digitalization and quality management.

1:00 – 2:30 (Tuesday) – Lunch Keynote - Dr. Zain Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates - Industrial Engineering and the Fourth Industrial Revolution: Education and Skills

Session Chair: Ms. Malini K V, Sri Sairam College of Engineering, Anekal, Bangalore, India

Dr. Abdelaziz Berrado
Department Chair and Associate Professor, Industrial Engineering Department
EMI School of Engineering, Mohamed V University, Rabat, Morocco

Dr. Abdelaziz Berrado is Department Chair and Associate Professor of Industrial Engineering in EMI School of Engineering at Mohamed V University in Rabat. He holds a Ph.D. degree in Decision Systems and Industrial Engineering from the Ira A. Fulton School of Engineering at Arizona State University. His research, teaching and consulting interests are in the areas of Big Data Analytics, Industrial Statistics, Operations and Supply Chain Modelling, Planning and Control with applications in healthcare, education and other industries. He focuses on developing frameworks, methods and tools for systems’ diagnostics, optimization and control with the aim of operational excellence. He published several papers in research journals and conferences with local and international funding. He reviews for many journals and is member of INFORMS, IEOM and IEEE. In addition to academic work, he interacts continuously with different Industries in the areas of Machine Learning, Quality Engineering and Supply Chain Management. He was also a senior engineer at Intel.
Dr. Bhaba R. Sarker
Elton G. Yates Distinguished Professor of Engineering
Louisiana State University
Baton Rouge, Louisiana, USA

Collaborative Research: Learning, Training and Research Productivity

Dr. Bhaba R. Sarker is the Elton G. Yates Distinguished Professor of Industrial Engineering and Operations Research at the Louisiana State University (LSU) where he has been teaching for about 30 years. He holds a BA (Mathematics) from Dhaka University, a BSME from BUET-Dhaka, an MTech (IE&OR) from IIT-Kharagpur, two MS degrees from Syracuse University and a PhD degree from Texas A&M University. Before joining LSU, he taught at the University of Texas at Austin and Texas A&M University. Dr. Sarker worked with the World Bank (Washington, DC), NASA (MSFC, KSC & JSC) and several industrial organizations in Bangladesh and India.

Dr. Sarker was the winner of Best (PhD) Dissertation Awards given by Institute of Industrial & Systems Engineers (IISE), Decision Sciences Institute (DSI) and Production and Operations Management Society (POMS). He published more than 160 papers in refereed journals and more than 90 technical papers in conference proceedings. Later, Professor Sarker also won the 2006 David F. Baker Distinguished Research Award from Institute of Industrial & Systems Engineers (IISE) for his outstanding research contributions in Industrial Engineering and Operations Research. Dr. Sarker supervised 12 post-doctoral and visiting fellows from many countries and also supervised many PhD and Masters’ students at LSU. He held several visiting faculty positions in many universities, and lectured extensively at more than 15 universities in China, Hong Kong and Taiwan. He served/serves on the editorial boards of many leading journals such as AJOR, APJOR, COR, EJOR, IJPE, IJPR, JMS, PPC, and IISE Transactions.

Dr. Sarker’s current research interest is in optimization applied to manufacturing systems, supply chain management, lean production system, warehouse logistics and distribution, product pricing & carbon reduction, healthcare systems, military logistics and renewable energy. His research has been funded by many federal agencies including DoE, DoT, NASA, NSF and US Army. He is a Fellow of IISE and South Asia Institute of Science and Engineering, and is also a member of DSI, INFORMS, POMS, and New York Academy of Sciences.

Ms. Malini K V
Head (EEE)
Sri Sairam College of Engineering
Anekal, Bangalore, India

ID 542 Managing Student Technology Innovations of Rural Engineering Campuses

Professor Malini graduated in Electrical and Electronics Engineering from Mysore University and obtained Masters in Power Electronics from JNTUA, AP Currently working as HOD, Electrical and Electronics Department and served in various verticals. The polyvalent experience of industry and academia has helped her to contribute to the development of the entrepreneurship cell in the campus. Prof. Malini is serving as a advisory board member of National Experts advisory board, DST, Govt. of India for the promotion of science and technology in the institutions. She is also the advisory board member of IEDC, Innovation and Entrepreneurship Development Centre, DST and serving as a nodal point of contact in the campus. Prof. Malini has recently bagged the National award as Best faculty female award by ISTE, New Delhi and she has bagged other prestigious awards like visionary leader by ICCIA and national award for excellence, by entrepreneurship council of India, Distinguished Women in engineering award by Venus foundation and Best familiar female faculty by international ASDF.

Session IV: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Tuesday)
Panel Chair: Dr. Abu Masud, Wichita State University, Kansas, USA

Panel Session – Global Engineering Education

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

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

Dr. António Grilo
Associate Professor with Habilitation
Head of the Department of Mechanical and Industrial Engineering at FCT NOVA
Director of UNIDEMI and Director of the PhD Program in Industrial Engineering
UNIDEMI- Research Centre hosted by the Department of Mechanical and Industrial Engineering (DEMI), of NOVA School of Science and Technology of Lisbon Nova University
Campus da Caparica, Portugal

Antonio Grilo is an Associated Professor with Habilitation at NOVA School of Science and Technology, Universidade NOVA de Lisboa, in the Department of Mechanical and Industrial Engineering. He is currently the Head of Department, Director of the research center UNIDEMI (www.unidemi.com), and Director of the PhD Program in Industrial Engineering. He lectures undergraduate, master and PhD courses on Technological Entrepreneurship, Engineering Economics, Information Systems for Industry, Industry Strategy and Management, Decision Models, and Project Management. The research interests are related with Digital Platforms and Digital Entrepreneurship. He has published over 100 papers in scientific journals and conferences, with 1000 citation in Scopus.

Wednesday (July 24, 2019)

Session V: Global Engineering Education (Room 1)
8:00 – 9:30 am (Wednesday)
Session Chair: Shaligram Pokharel, Qatar University, Doha, Qatar

8:00 – 8:30 (Wednesday) – Room 1
Shaligram Pokharel
Professor
Department of Mechanical and Industrial Engineering
Qatar University
Doha, Qatar

Shaligram Pokharel is a Professor of Industrial and Systems Engineering program at the Department of Mechanical and Industrial Engineering, in Qatar University. Shaligram earned B.E (Hons) in Mechanical Engineering from the Regional Engineering College, Kashmir, India and Masters and PhD in Systems Design Engineering from the University of Waterloo, Canada. Shaligram has obtained more than US$ 2,000,000 research grant in various areas of engineering management. He has published more than 100 papers in journals and conferences.

8:30 – 9:00 (Wednesday) – Room 1
Professor Charles Mbohwa
Professor
Faculty of Engineering and the Built Environment
University of Johannesburg
South Africa

Engineering Education in Africa

Professor Charles Mbohwa is a full professor in Faculty of Engineering and the Built Environment, University of Johannesburg. He was formerly the Vice-Dean for postgraduate studies research and innovation and Acting Dean of the faculty. He obtained B. Sc, Honours in Mechanical Engineering in 1986 from Department of Mechanical Engineering, University of Zimbabwe, Harare, Zimbabwe. He later bagged M. Sc. in Operations Management and Manufacturing Systems in 1992, with a distinction from Department of Manufacturing Systems Engineering, University of Nottingham, UK. He obtained PhD in Engineering (Production Systems focusing on Energy and life cycle assessment) from Tokyo Metropolitan Institute of Technology, Tokyo, Japan in 2004. Professor Mbohwa is an NRF-rated established researcher. In January 2012 he was confirmed as an established researcher making significant contribution to the developing fields of sustainability and life cycle assessment. In addition, he has produced high quality body of research work on Southern Africa. He is an active member of the United Nations Environment Programme/Society of Environmental and Toxicology and Chemistry Life Cycle Initiative, where he has served on many taskforce teams.
Dr. Y. Vijaya Kumar
Principal
Sri Sairam College of Engineering (SSCE)
Sai Leo Nagar, Anekal, Bengaluru, India

Dr. Y. Vijaya Kumar currently working as Principal at Sri Sairam College of Engineering (SSCE), Sai Leo Nagar, Anekal, Bengaluru, graduated in Mechanical Engineering in the year 1984 from Sri Venkateswara University College of Engineering, S.V. University – Tirupalli, A.P and subsequently acquired Masters Degree in Industrial Engineering from National Institute of Technology (NIT), Calicut (Kerala) and Ph.D in Industrial Engineering (OR & SQC) from Sri Krishna Devaraya University – Anantapur A.P. He also served various academic bodies like Member of Governing Council, BOS & BOE of various Universities like VTU, BU, JAIN etc.

Prof. Kumar has been worked for one term as a Member of the SECTION MANAGING COMMITTEE of ISTE - Karnataka Section during 2012 - 2014. I have been awarded "BEST EDUCATIONIST" and a CERTIFICATE OF EDUCATION EXCELLENCE by International Institute of Education & Management, Delhi during 2012 and Received LIFETIME ACHIEVEMENT AWARD for the contribution and achievement in the field of Industrial Engineering by Venus International Foundation conferred on 9th July 2016 at Hotel Green Park, Chennai. Recently I have been awarded as BEST PRINCIPAL (Engg & Tech) of the Year 2017 by South Indian ASDF Awards (SIAA 2017) held at Crown Plaza, Cochin on 8th April 2017.

Prof. Kumar has five years of Industrial experience at M/s Rashtriya Chemicals & Fertilizers Ltd., Chembur, Mumbai & M/s Reliance Industries Ltd., Mumbai and 28 years of teaching experience in both UG and PG. Ten Research scholars have acquired Ph. D under his supervision at Visvesvaraya Technological University (VTU – 2 Scholars), Jawaharlal Nehru Technological University (JNTU-A – 2 Scholars), Dr. M G R University (MGR – 2 Scholars) and JAIN University (JU – 4 Scholars). One Scholar has acquired M S Engg in the area of Mechanical Engineering from VTU. At present Prof. Kumar is guiding five scholars for Ph. D in Industrial Engineering, Manufacturing, Product Design & Development and Reliability Engineering.

During 28 years of Teaching (which includes 10 years as Principal), Research and Consultancy experience, Prof. Kumar has applied for two patents and published more than 36 research papers in referred journals at International & National level and presented 30 papers at various conferences. Teaching and Research interest center on Industrial Engineering, Machinability, Product Design & Development and Reliability Engineering and conducted several sponsored workshops and conferences. He is a member of number of professional bodies such as ISTE, IEI, CSI, IET, SAIE, IIPE etc., Prof. Kumar has given several programs in the T V Channels. Encouraging and motivating the students and colleagues to do innovative things and working for the robust growth of the Institution is the key mantra for the success of my career.

9:40 - 10:20 (Wednesday): Keynote: Dr. Seifedine Kadry, Professor of Applied Statistics, Director of Applied Statistics Center, Coordinator of Continuing Education Program (CPE), Beirut Arab University, Lebanon

10:20 - 11:00 (Wednesday): Keynote: Petr Nekloň, Valeo, Prague, Czech Republic - Ballroom

Session VI: Global Engineering Education (Room 1) - 11:30 am – 1:00 pm (Wednesday)
Session Chair: Leslie Monplaisir, Wayne State University, Detroit, MI, USA

11:30 – 11:55 (Wednesday) – Room 1

Jiří Patermann
Prague, Czech Republic

The Title of the Presentation: How to measure efficiency efficiently

Short Synopsis: Basically, it would be about different ways how to tackle machine and Labour efficiency and avoid some pitfalls. My assumption is that many companies eager for digitalization skip some fundamental basics which leads to disappointing outcomes.

Bio: Jiří Patermann has over 10 years hands-on experience in different industries including automotive supplier manufacturing and repair shops. His primary focus includes gemba governance and usability aspect of lean production systems. He currently works for one of the largest Tier 1 car suppliers in the Czech Republic as a lean manager where he is passionate in applying and teaching fundamental practices he learned from his Japanese coaches.

11:55 – 12:10 (Wednesday) – Room 1

Carlos Ermani Fries, Lucas Bonomini de Luna, Ricardo Giglio
Department of Production and Systems Engineering
Federal University of Santa Catarina, Campus Trindade
Florianópolis, SC, Brazil

Carlos Ermani Fries is currently Associate Professor in the Department of Production and Systems Engineering at UFSC. Mr. Fries holds a Master and PhD in Production Engineering from UFSC. He has taught courses of Operations Research applied to Manufacturing, Decision Theory, and Statistics among others. His research interests include Simulation, Optimization, Management Games, and application of big-data tools. He is member of IEOM and INFORMS.

ID 455 Efficiency Analysis of Public Primary Schools: The Case of a Medium-Sized Brazilian City

12:10 – 12:35 (Wednesday) – Room 1

Pramod Kinker, Shailesh Vaidya, A. R. Singh
Department of Mechanical Engineering
National Institute of Technology
Raipur, Chhattisgarh, India
Rajeev Jain  
Department of Mechanical Engineering  
Kalaniketan Polytechnic College  
Jabalpur, Madhya Pradesh, India

Pramod Kinker is a part time research scholar at Mechanical Engineering Department at National Institute of Technology, Raipur, India. He is also a senior Lecturer in the Mechanical Engineering Department, Kalaniketan Polytechnic College Jabalpur, India. He has completed his bachelor degree from Guru Ghasidas University Bilaspur Madhya Pradesh, India and completed his master degree in heat power from Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal, Madhya Pradesh, India. He has eighteen years of experience in teaching. His area of interest is refrigeration system, education management etc.

ID 489 Prioritizing Service Quality Factors for Polytechnic Institutions as Per Student’s Perception in the State of Madhya Pradesh, India

12:35 – 1:00 (Wednesday) – Room 1

Leslie Monplaisir, PhD  
Professor and Chair  
Industrial and Systems Engineering  
Wayne State University, Detroit, MI

ID 179 Global Executive Doctoral Program

Leslie Monplaisir, Professor of Industrial and Systems Engineering, is Chair of the Department of Industrial and Manufacturing Engineering at Wayne State University (WSU). He is a Lead Researcher and Director of the Product Development and Systems Engineering Consortium (PDSEC) at WSU. His research interests include: Lean Product Development, Design for lean Systems and Services and Design reuse, Collaborative PD Decision Making, Product Architecture Optimization, Design for Supply Chain, Global Product Platform Optimization and Healthcare Technology System Design He has authored over 100 publications in these areas with funded research from NSF, Ford, GM, Sun Microsystems, Tarcde, VA and PTC. Monplaisir joined the College of Engineering at Wayne State University in the Department of Industrial and Manufacturing Engineering in 1996 from Florida A & M University where he was a visiting assistant professor. He earned his PhD in Engineering Management from the Missouri University of Science and Technology (MUST), a masters in Computer Integrated Manufacturing from the University of Birmingham in Great Britain, and bachelors in Mechanical Engineering from the University of the West Indies in Trinidad.

Education:  
Ph.D. - 1995 (Engineering Management) University of Missouri-Rolla  
M.S. - 1991 (Computer Integrated Manufacturing) University of Birmingham; England  
B.S. - 1987 (Engineering) The University of the West Indies, St. Augustine, Trinidad

1:00 - 2:30: Networking Lunch Buffet

1:30 – 2:00: Wednesday Lunch Keynote: Roman Žák, Chairman of the Board, Aimtec, Pilsen, Czech Republic-Ballroom

Thursday (July 25, 2019)

Session IX: Global Engineering Education (Room 1) - 8:00 – 9:30 am (Thursday)  
Session Chair: Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia

8:00 – 8:30 (Thursday) – Room 1

Dr. Eldon Caldwell  
Director, Industrial Engineering Department  
Engineering School  
University of Costa Rica, San Jose, Costa Rica

The Project based Learning combined with Problem Solving based Learning in Industrial Engineering Programs

Eldon Caldwell, is full professor/ Cathedraticus of the University of Costa Rica, Central America and member of the IEOM Society Academy of Fellows; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering, University of Nevada. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program, major in Robotics and Automation at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013 and 2015. Dr. Caldwell is ISO 9000 Lead Auditor, UK, “Lean Systems Certificated Specialist”, MAPV-University of Nevada, USA and ASQ-Six Sigma Black Belt Certified Trainer. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering, Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Summa Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, Mexico. He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA. Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quiros & Cia-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC- Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.
Dr. Kapil Gupta
Associate Professor
Dept. of Mechanical and Industrial Engineering Technology
University of Johannesburg, South Africa

Kapil Gupta is working as Associate Professor in the Dept. of Mechanical and Industrial Engineering Technology at the University of Johannesburg. He obtained Ph.D. in mechanical engineering with specialization in Advanced Manufacturing from Indian Institute of Technology Indore, India in 2014. Advanced machining processes, sustainable manufacturing, green machining, precision engineering and gear technology are the areas of his interest. Several SCI Journal and International Conference articles have been credited into his account. He has also published some books on hybrid machining, advanced gear manufacturing, micro and precision manufacturing etc. with renowned international publishers.

ID 343 Development of Industry 4.0 Virtual Lab for Manufacturing Engineering Education
Kapil Gupta, M Mukhawana, Madindwa Mashinini and Arno Louw, Centre for Academic Technologies, University of Johannesburg, South Africa

9:00 – 9:30 (Thursday) – Room 1
Ing. Andrea Benesova
Commercial Electrical Engineering
University of West Bohemia
Pilsen, Czech Republic

Ing. Andrea Benesova In 2013 obtained bachelor degree in Commercial Electrical Engineering at the University of West Bohemia in Pilsen. In 2015 obtained master degree in Commercial Electrical Engineering at the University of West Bohemia in Pilsen, diploma thesis “Analysis and modeling of selected processes in electrical engineering production”. From 2015 to present she is a Ph.D student at the University of West Bohemia in Pilsen, Faculty of Electrical Engineering, Department of Technologies and Measurement, topic of her doctoral thesis is “Management of prospective technological processes in electrical engineering”. She has published conference papers such as Requirements for Education and Qualification of People in Industry 4.0.

ID 358 Requirements for Education 4.0 and Study Programs within Industry 4.0
Andrea Benesova, Martin Hirman, Frantisek Steiner and Jiri Tupa, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Univerzitní, Pilsen, Czech Republic

09:30: Keynote (Thursday): Dr. Sascha Gierlings, Head of Prototype Manufacturing, Business Development Turbomachinery, Fraunhofer-Institute for Production Technology (IPT), Steinbachstraße, Aachen, Germany - Ballroom
10:00: Keynote (Thursday): Ing. Tomáš Vondrák MBA, Plant Manager, Continental Automotive Czech Republic, Brandýs nad Labem – Ballroom
10:30: Keynote (Thursday): Ing. Luděk Janík, Ph.D., Director – Eaton European Innovation Center, Eaton Corporation, Prague, Czech Republic

Session Chair: Dr. Christoph Wunck, Emden/Leer University of Applied Sciences, Germany

11:30 am – 1:00 pm (Thursday)
Session X: Global Engineering Education (Room 1) - 11:30 am – 1:00 pm (Thursday)
Session Chair: Dr. Christoph Wunck, Emden/Leer University of Applied Sciences, Germany

11:30 – 12:00 (Thursday) – Room 1
Dr. Felicita Chromjakova
Professor, Department of Industrial Engineering and Information Systems
Tomas Bata University
Zlin, Czech Republic

Felicita Chromjakova is a Professor by Department of Industrial Engineering and Information Systems at the Tomas Bata University in Zlin, Czech Republic. She holds a Science degree in Industrial Engineering by University Žilina, Slovakia. Professor grade she holds at Tomas Bata University in Zlin, programme Economic and Management – Industrial Engineering. She is oriented on research project concerned into area of lean management techniques, digitized process management technologies, innovations and improvement projects in traditional production technologies. A lot of industrial projects she completed in cooperation with more industrial companies as Hella, Austin Detonator, Continental, Denso. Her publication horizon consists from more scientific oriented papers, presented by various international meetings with colleagues from European countries, USA, Australia and Asia.

12:00 – 12:30 (Thursday) – Room 1
Bhavani Rao R.
UNESCO Chair in Gender Equality & Women’s Empowerment
Amrita Vishwa Vidyapeetham, India
Director of AMMACHI Labs, Amrita Multi Modal Applications Using Computer & Human Interaction Labs
Amrita Vishwa Vidyapeetham

Bhavani Rao R. serves as the UNESCO Chair in Gender Equality & Women’s Empowerment (Amrita Vishwa Vidyapeetham, India) and is the Director of AMMACHI Labs, Amrita Multi Modal Applications Using Computer & Human Interaction Labs, at Amrita Vishwa Vidyapeetham. Under the UNESCO Chair, Bhavani Rao heads an academic center dedicated to participatory action research, education and implementation that focuses on the mapping of vulnerabilities of women in underserved communities. As the Director of AMMACHI Labs, Bhavani Rao heads the R&D that focuses on Human Computer Interaction (HCI), Robotics and Automation technologies for education, skill development, disaster response, medical assistance and rehabilitation. Bhavani Rao is the Principal Investigator for several projects at Amrita, funded by organizations such as the United Nations Democracy Fund, the Ministry of Skill Development And Entrepreneurship (MSDE) and the National Skill Development Corporation (NSDC), Government of India. A
central focus on her work has been the use of skill-development as the baseline strategy, and women’s empowerment as the underlying vision. She is also a full time Associate Professor at Amrita Vishwa Vidyapeetham (University), Kerala, India.

12:30 – 1:00 (Thursday) – Room 1

Dr. Christoph Wunck
Professor of Business Information Systems
Department of Electrical Engineering & Computer Science
Emden/Leer University of Applied Sciences, Germany

Prof. Dr. Christoph Wunck holds a full professorship for Business Information Systems at Emden/Leer University of Applied Sciences, Germany. He was a professor for Business Information Systems at Jade University from 1999 to 2018. He teaches courses on Distributed Applications, Software Engineering, Programming, Electronic Business Systems and Process Management. He holds a doctoral degree from the faculty of Mechanical Engineering and a Master’s degree (Diplom-Ingenieur) in Electrical Engineering, both from RWTH Aachen University. Dr. Wunck is a scientific director at OFFIS Institute for Information Technology in Oldenburg, Germany. He has been appointed Affiliate Professor of Computer Science at Iowa State University in Ames, Iowa, USA.

His professional experience covers project management and consulting services for a major European business consultancy and work as a consulting engineer for manufacturing and electronics industries. He has served Jade University for nine years in the position of Dean and Dean of Studies. His research interest include:

- Application of IT and Business Information Systems in Industrial Engineering
- Distributed Manufacturing Execution Systems, Multi-Agent Systems, Data Science, Manufacturing Intelligence
- IT Governance and Security in Operations and Supply Chain Management

Prof. Dr. Wunck is well connected in his field. He serves in the management of conferences and is a reviewer for conference papers and books. He is a member of IEEE Industrial Electronics Society, IEOM, IISE, INFORS, ISCA, ISACA and VDI.

1:00 - 2:30 Networking Lunch Buffet

1:30 – 2:00: Lunch Keynote: Dr. Jose Luis Guerrero-Cusumano, Associate Professor of Operations and Information Management, McDonough School of Business, Georgetown University, Washington D.C., USA

Session XI: Global Engineering Education (Room 1) - 2:30 – 4:00 pm (Thursday)
Session Chair: Dr. Sharif, Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India

2:30 – 3:00 (Thursday) – Room 1

Dr. Mohammad Khadem
Assistant Professor
Department of Mechanical and Industrial Engineering
Sultan Qaboos University
Muscat, Oman

Mohammad Khadem is working as an Assistant Professor at Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Sultanate of Oman since September 2005. He received his PhD from University of Wisconsin, Milwaukee, USA in 2004. He received his Master of Science (Mechanical Engineering) degree from the University of South Alabama, USA in 2001. His research interest lies in the area of Simulation and Optimization, Decision Support System, Intelligent Manufacturing System, Lean Manufacturing, Flexible Manufacturing System, Logistic and Supply Chain, Production Planning and Control. He has published several research papers both in international journals and in conference proceedings.

3:00 – 3:30 (Thursday) – Room 1

Ozofu Akerele
Postgraduate School of Engineering Management
Faculty of Engineering and the Built Environment
University of Johannesburg
Auckland Park, Johannesburg, South Africa

Ozofu Akerele has both National Diploma and Higher National Diploma in Civil Engineering obtained from the Federal Polytechnic, Ilaro, Nigeria. She has over 15 years of work experience in the Construction and Built Proceedings of the International Conference on Industrial Engineering and Operations Management Environment industry mainly in supervision, planning, tender packaging, construction and management of various building and civil works which includes residential buildings, commercial properties (office buildings), road projects and other infrastructure. She has just completed a Masters (MPhil) in Engineering Management at the University of Johannesburg, South Africa. She has worked for both the Employer/Cient and Consultant organisations in both West Africa (i.e. Nigeria) and sub-Saharan Africa region (i.e. South Africa).

ID 064 Determining the Benefits of the Engineering Mentoring Programmes for Graduates
Ozofu Akerele, André Vermeulen and Annlizé Marnewick, University of Johannesburg, Gauteng, South Africa

3:30 – 4:00 (Thursday) – Room 1

Prof. R.R.K. Sharma
HAG Scale Professor
Department of Industrial and Management Engineering
Indian Institute of Technology
Kanpur, India
Prof. R.R.K. Sharma is a HAG scale professor in the Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India. He was awarded Sanjay Mittal Chair professor for a period of three years. He has published more than 200 research articles of international repute. He published five books and two research monographs in 2018. He has been awarded with several international awards, including Best Academician award from IEOM in 2017.

R.R.K. Sharma, Ateequr Rahman, Sharif and Vinayak A Drave, Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India

Session XII: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Thursday)
Session Chair: Dr. Abdul Talib Bon, UTHM, Malaysia

ID 566 Model of Students’ Understanding on Thermodynamic Concepts in Learning with Virtual Labs
Gunawan, Ahmad Harjono, Hairunisyah Sahidu and Ni Made Yeni Suranti, Departmen of Physics Education, Universitas Mataram, Jln. Majapahit No 62 Mataram 83125, Indonesia
Lovy Herayanti, Physics Education Study Program, IKIP Mataram, Jln. Pemuda No 59A Mataram 83125, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 567 Model of Triple Jump Achievement: The Effect Method Learning and Motor Skills Youth 18 – 20 Age
Herli Pardilla, Achmad Sofyan Hanif, Hidayat Humaid, Mulyana and James Tangkudung, Universitas Negeri Jakarta, Sport Education Department, Jakarta Timur, Jakarta 13220, Indonesia
Jufrianis, Universitas Pahlawan, Department of Physical Education, Bangkinang, Riau 28412, Indonesia
Raffly Henjilito, Islamic University of Riau, Department of Physical Education, Pekanbaru, Riau 28284, Indonesia
Samsuddin Siregar, Universitas Negeri Medan, Department of Physical Education and Recreation, Medan 20221, Indonesia
Abdul Talib Bon, Department of Production and Operations Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia

ID 568 The role of academics’ organizational commitments on their extra role behavior in academic contexts
Isnawati Osman, Andi Reni, Ria Mardiana and Andi Nur Baumnassepe, Hasanuddin University, Faculty of Economics and Business, Department of Management, Makassar, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 569 Model of Physical Condition of Leg Muscle Explosive Power, Nutrition Status and Confidence Towards Skill Smash Sepaktakraw
Jufrianis, Student of Department of Sport Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta, Indonesia and Department of Physical Education, Universitas Pahlawan Tuanku Tambusai, Jalan Lingkar Bangkinang, Kampar, Riau, Indonesia
James Tangkudung, Hidayat Humaid, Achmad Sofyan Hanif, Firmansyah Dlis, Moch Amsawi and Widiastuti, Department of Sport Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta, Indonesia
Herli Pardilla, Department of Physical Education, Universitas Pahlawan Tuanku Tambusai, Jalan Lingkar Bangkinang, Kampar, Riau, Indonesia
Raffly Henjilito, Departement of Physical Education, Universitas Islam Riau, Jalan Kaharuddin Nasution Marpoyan, Pekanbaru, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 572 Interactive Multimedia Product Based on Green Chemistry in the Acid-Base Concept of Chemistry Learning Process
M. Yustiqvar, Magister Program of Science Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia
Gunawan, Department of Physics Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia
Saprizal Hadisaputra, Department of Chemistry Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia
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Master Thesis Competition Chair
Dr. Sefedine Kadry, Beirut Arab University Lebanon

Graduate/Postgraduate Student Paper Competition Chair
Dr. Ahm Shamsuzzoha, University of Vaasa, Finland

Undergraduate Student Paper Competition Chair
Dr. Abbas Mahmoudabadi, Mehran University, Gilan, Iran

Senior Design Capstone Project / FYP Poster Competition Chair
Dr. Md. Shamsuzzaman, University of Sharjah, UAE

Simulation Competition Chair
Dr. Neil Murray, ZF-TRW, USA

Lean Six Sigma Competition Chair
Dr. Soso Krovstovski, Ford Motor Company, USA

Supply Chain and Logistics Competition Chair
Dr. Abdelaziz Berardo, EMI

Poster Competition Chair
Dr. Md. Mizanur Rahman, University Technology Malaysia (UTM), Johor Bahru, Malaysia

High School / Middle School STEM Competition Chair
Professor Don Reimer, Lawrence Technological University, MI, USA

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July 23-26, 2019

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Third European Conference

21
Parallel Sessions

**Tuesday, July 23, 2019**

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<td>8:00</td>
<td>Global Engineering Education I</td>
<td>Industry Solutions I: Energy 4.0</td>
<td>Undergraduate Paper Competition</td>
<td>Graduate Student Paper Competition</td>
<td>Operations Management</td>
<td>Modeling and Simulation</td>
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<td>9:30</td>
<td>Welcome Address: Dr. Miroslav Holeček, Rector, University of West Bohemia, Plzen, Czech Republic</td>
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<td>9:40</td>
<td>Opening Keynote I: Dipl. Ing. Wolfgang Weissler, CEO Digital Factory &amp; Process Industries and Drives, Siemens Czech Republic</td>
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<td>10:20</td>
<td>Opening Keynote II: Prof. Ing. Josef Basi, CSC., Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Plzen, Czech Republic</td>
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<td>11:00</td>
<td>Networking Break – Foyer Area</td>
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<td>11:30</td>
<td>Global Engineering Education II</td>
<td>Industry Solutions II</td>
<td>Undergraduate Competition</td>
<td>Graduate Paper Competition</td>
<td>Sustainability and Supply Chain</td>
<td>Project Management</td>
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<td>1:00</td>
<td>1:00 – 2:30: Networking Lunch Buffet - Ballroom</td>
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<td>1:30</td>
<td>Lunch Keynote: Dr. Zain Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates</td>
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<tr>
<td>2:30</td>
<td>Global Engineering Education III</td>
<td>Industry Solutions III</td>
<td>Human Factors and Ergonomics</td>
<td>Service Systems and Service Management</td>
<td>Lean Six Sigma</td>
<td>Product Design and Development</td>
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<td>4:00</td>
<td>Networking Break at Exhibition Hall</td>
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<td>4:30</td>
<td>PANEL SESSION</td>
<td>Sustainable Operations and Supply Chain</td>
<td>Competitions</td>
<td>Production Planning and Control</td>
<td>Quality Control</td>
<td>Business Management</td>
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<td>Global Engineering Education</td>
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<td>9:40</td>
<td>Opening Keynote: Dr. Seifedine Kadry, Professor of Applied Statistics, Director of Applied Statistics Center, Coordinator of Continuing Education Program (CPE), Beirut Arab University, Lebanon</td>
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<td>11:30</td>
<td>Global Engineering Education VI</td>
<td>IndSolv-VI: e-Business/e-Service/e-Commerce</td>
<td>Sustainability in Supply Chain</td>
<td>Manufacturing</td>
<td>Energy and Resource Efficiency</td>
<td>Data Analytics and Big Data</td>
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<td>1:30 – 2:00</td>
<td>Lunch Keynote: Roman Žák, Chairman of the Board, Aimtec, Plzen, Czech Republic - Ballroom</td>
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<td>2:30</td>
<td>Decision Sciences</td>
<td>PANEL SESSION</td>
<td>Waste Management</td>
<td>Systems Engineering</td>
<td>Supply Chain Management</td>
<td>Lean Six Sigma</td>
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<td>Women in Industry and Academy (WIA)</td>
<td>Sustainable Operations and Supply Chain</td>
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<td>4:30</td>
<td>Reliability and Maintenance</td>
<td>PANEL SESSION</td>
<td>Knowledge Management</td>
<td>Data Analytics</td>
<td>Facilities Planning and Management</td>
<td>Logistics, Transport and Traffic Management</td>
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<td>Supply Chain Sustainability</td>
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<td>6:00 – 8:00 pm</td>
<td>Poster Session including High School STEM Competition &amp; Senior Design Poster Competition</td>
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**Wednesday, July 24, 2019**

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<td>4:00</td>
<td>Networking Break at Exhibition Hall</td>
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<td>4:30</td>
<td>Reliability and Maintenance</td>
<td>PANEL SESSION</td>
<td>Knowledge Management</td>
<td>Data Analytics</td>
<td>Facilities Planning and Management</td>
<td>Logistics, Transport and Traffic Management</td>
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<td>Supply Chain Sustainability</td>
<td>Sustainable Operations and Supply Chain</td>
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<td>6:00 – 8:00 pm</td>
<td>Poster Session including High School STEM Competition &amp; Senior Design Poster Competition</td>
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**Thursday, July 25, 2019**

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<th>Rooms</th>
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<tr>
<td>8:00</td>
<td>Global Engineering Education IX</td>
<td>Industry Solutions IX</td>
<td>Sustainability</td>
<td>Engineering Economy</td>
<td>Sustainable Manufacturing</td>
<td>Project Management</td>
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<tr>
<td>9:30</td>
<td>Keynote: Dr. Sascha Gierlings, Head of Prototype Manufacturing, Business Development Turbomachinery, Fraunhofer-Institute for Production Technology (IPT), Steinbachstraße, Aachen, Germany</td>
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<td>10:00</td>
<td>Keynote: Mr. Tomas Vondrak, Plant Manager, Continental, Czech Republic</td>
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<td>10:30</td>
<td>Keynote: Ing. Luděk Janík, Ph.D., Director – Eaton European Innovation Center, Prague, Czech Republic</td>
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<td>11:30</td>
<td>Global Engineering Education X</td>
<td>Industry Solutions X: Energy 4.0</td>
<td>Knowledge Management</td>
<td>Engineering Economy</td>
<td>Design and Optimization</td>
<td>Inventory Control and Management</td>
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<tr>
<td>1:00</td>
<td>1:00 – 2:30: Networking Lunch Buffet - Ballroom</td>
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<td>1:30 – 2:00</td>
<td>Lunch Keynote: Dr. Jose Luis Guerrero-Cusmano, Associate Professor of Operations and Information Management, McDonough School of Business, Georgetown University, Washington D.C., USA - Ballroom</td>
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<td>4:30</td>
<td>Global Engineering Education XII</td>
<td>Industry Solutions XII</td>
<td>Lean Six Sigma</td>
<td>Decision Sciences</td>
<td>Information Systems and IT</td>
<td>Statistics and Maintenance</td>
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**7:00 – 10:00 pm, Thursday:** Conference Awards Dinner and Cultural Program
July 23, 2019 (Tuesday)

Session: 8:00 – 9:30 am

8:00 – 9:30, TUESDAY  Global Engineering Education I  Room 1
Session Chair: Dr. Kapil Gupta, University of Johannesburg, South Africa

8:00 – 8:30 (Tuesday)

D. Sujitha Juliet, Ph.D.
Assistant Professor
Department of Computer Science and Engineering
Karunya Institute of Technology and Sciences
Coimbatore, India

8:30 – 9:00 (Tuesday)

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

9:00 – 9:30 (Tuesday)

M. Chairul Basrun Umanailo
Lecturer, Department of Agricultural and Forestry
Iqra Buru University
Namlea, Maluku 97571, Indonesia

ID 571 Utilization of Qualitative Methods in Research Universities
M. Chairul Basrun Umanailo and Iskandar Hamid, Universitas Iqra Buru, Department of Agricultural and Forestry, Namlea, Maluku 97571, Indonesia
Hamiru Hamiru, Universitas Iqra Buru, Department of Economy, Namlea, Maluku 97571, Indonesia
Sjaid S Fais Assagaf and M Bula, Universitas Iqra Buru, Department of Engineering, Namlea, Maluku 97571, Indonesia
Mansyur Nawawi, Sukainap Pulhehe and Salma Yusuf, Universitas Iqra Buru, Department of Law, Namlea, Maluku, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

8:00 – 9:30, TUESDAY  Industry Solutions I: Industry 4.0  Room 2
Session Chair: Dr. Sharif, Indian Institute of Technology Kanpur, India

8:00 – 8:45 (Tuesday)

Luis A. Mendoza-del Villar and Eduardo Oliva-López
Posgrado en Ingeniería de Sistemas
Instituto Politécnico Nacional
Mexico City, Mexico

ID 559 Towards Sustainable Industrial Development - A Systems Thinking-Based Approach
Luis A. Mendoza-del Villar and Eduardo Oliva-López, Posgrado en Ingeniería de Sistemas, Instituto Politécnico Nacional, Mexico City, Mexico
Octavio Luis-Pineda, Economía, Instituto Politécnico Nacional, Mexico City, Mexico
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, UK

8:45 – 9:10 (Tuesday)

Dr. Abdul Talib Bon
Professor of Technology Management
Department of Production and Operations Management
Universiti Tun Hussein Onn Malaysia

Optimization Techniques for Transportation Problems in Warehouse of a Furniture Industry using Arena Simulation

9:10 – 9:30 (Tuesday)

Dr. Sharif
Head, I.A. Department
Indian Institute of Technology Kanpur
India
8:00 – 9:30, TUESDAY  Undergraduate Student Paper Competition  Room 3

Session Chair: Judging Committee Chair

ID 004  Improving Forecasting Accuracy to reduce Variability of Customer Service Level  
Bernardo Villarreal, Mónica Balderas, Andrea Arazia and Mariana Pena, Universidad de Monterrey, San Pedro Garza García, México.

ID 007  Increase Plant Productivity Using an OEE Approach: An Application  
Bernardo Villarreal, Universidad De Monterrey, San Pedro Garza Garcia, Mexico

ID 383  Student Satisfaction and I-E-M Method Proposal for Improved Learning Experience of Generation Y and Generation Z  
Engineering Students  
Romalyn L. Galingan, Industrial Engineering Department, Technological Institute of the Philippines, Quiezon City, Metro Manila, Philippines

ID 516  Handling Mercury (Hg) Waste through Utilization of Lapindo Activated Mud HCl to Realize Environmentally Friendly Gold Mining Industries  
Sigit Trimayanto, Rani Kurnianinggsih, Ade Tiyas Widyawati and Laila Rezty Hertiwi, Departement of Chemistry, State University of Surabaya, Surabaya, Indonesia

ID 208  A Method to Construct Driving Cycles Based On Micro-Trips and Cluster Analysis  
Marco Felipe Astaiza Castro, Pontificia Universidad Javeriana Cali, Valle del Cauca. 66238, Colombia  
Jenny Díaz Ramírez, Department of Engineering, Universidad de Monterrey, Monterrey, N.L. 66238, Mexico  
Michael Daniel Giraldo and José Ignacio Huertas, Energy and Climate Change Research Group, School of Engineering and Science, Tecnologico de Monterrey, Monterrey, N.L., 68849, Mexico

8:00 – 9:30, TUESDAY  Graduate Student Paper Competition  Room 4

Session Chair: Judging Committee Chair

ID 335  A Review of Adomian Decomposition Method  
Ira Sumiati, Endang Rusyaman, Sukono and Subiyanto, Master Program of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 336  Review Methods to Solve Fractional Black-Scholes  
Sevira Nurazizah, Endang Rusyaman, Sukono and Subiyanto, Universitas Padjadjaran, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 337  Review Strategies of Optimal Crop Insurance Selection Based on Climate Change  
Diantiny Mariam Pribadi, Sukono, Riaman and Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Science, Universitas Padjadjaran, Indonesia.  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 338  A Review Climate Index Insurance in the Field of Agriculture Using the Copula Model  
Fiyan Handoyo, Sukono, Riaman and Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Science, Universitas Padjadjaran, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 531  Tools and Leadership Qualities for Change Implementation  
Lukas Vaclavik, CPD & Strategic Management, College of Engineering and Technology, University of Derby, UK

8:00 – 9:30, TUESDAY  Operations Management  Room 5

Session Chair: Piya Ghosh, Indian Institute of Technology, Kanpur, India

ID 048  Industrialisation and Its Impact on Operations Management Development: A Guess into the fourth Industrial Revolution.  
Eric Amankwa, Department of Quality and operations management, Faculty of Engineering and the Built Environment, University of Johannesburg

ID 066  Internet of Things Based Processes Improvement of Indonesian Hospital  
Egi Aulia Mahendra, M. Dachyar and Farizal, Universitas Indonesia, Indonesia

ID 088  Pre-order Sales for Advance Selling with Capacity Constraint  
Kwei-Long Huang and Cheng-Tao Hsu, Institute of Industrial Engineering, National Taiwan University, Taiwan

ID 175  Factors Affecting Efficiency of Police Stations in Metropolitan Police Division 3  
Pornpimol Chaiwuttisak, Statistics Department, King Mongkut’s Institute of Technology Ladkrabang, Bangkok, Thailand

ID 181  Analysis of Changes in Productivity in the Colombian Banking Sector  
Gloria Rodríguez-Lozano, School of Business Administration and Public Accounting, Universidad Nacional de Colombia, Bogotá, Colombia

ID 103  The Re-Formulation for Single Item Capacitated Lot Sizing Problem with Shortage, Inventory and With Strict Carbon Cap  
Piya Ghosh and RRK Sharma, Indian Institute of Technology, Kanpur, India
8:00 – 9:30, TUESDAY  Modeling and Simulation  Room 6
Session Chair: Ali Elkamel, University of Waterloo, Ontario, Canada

ID 225  Industrial IoT integrated with Simulation – A Digital Twin Approach to Support Real-Time Decision Making
Romão Santos and João Basto, Centre for Enterprise Systems Engineering, INESC TEC, Porto, Portugal
Symone G. S. Alcalá, Faculty of Sciences and Technology, Federal University of Goiás, Aparecida de Goiânia, Goiás, Brazil
Enzo Frazzon, Industrial and Systems Engineering Department, Federal University of Santa Catarina, Florianópolis, Brazil
Américo Azevedo, Department of Industrial Engineering and Management, Faculty of Engineering of the University of Porto, Porto, Portugal

ID 430  Sustainability of Sago Agro-industry Using Rapid Appraisal (Case Study: Sago Industri X in South Sorong, Papua)
Mega Ayu Yusuf, Department of Agricultural Engineering, Musamus University, 99616, Indonesia
Muhammad Romli and Suprihatin, Department of Agroindustrial Technology, Bogor Agricultural University, 16680, Indonesia
Edi Iswanto Wiloso, Research Center for Chemistry, Indonesian Institute of Sciences (LIPI), Tangerang Selatan, 15314, Indonesia

ID 341  Generalized Transportation Relay Network Design
Amin Ziaeifar, Halit Uster, Department of Engineering Management, Information, and Systems, Southern Methodist University, Dallas, TX, USA

ID 071  Relative Efficiency of International Airlines
Antonio Henrique de Araújo Junior, Niló Antonio de Souza Sampaio, Jose Glenio Medeiros de Barros, Bernardo Bastos da Fonseca and Maria da Gloria Diniz de Almeida, Rio de Janeiro State University, Industrial Engineering Department, Brazil

ID 425  Statistical and Kinetic Modeling for Investigating Acetyl Salicylic Acid Stability
Najwa Alwazni, Asmaa Awad, Ali Elkamel, Chemical Engineering Department, University of Waterloo, Waterloo, Ontario, Canada
Chandra Mouli R Madhuranthakam, Chemical Engineering Department, Abu Dhabi University, Abu Dhabi, United Arab Emirates
Ibrahim Mustafa1, Helwan University, Cairo, Egypt
Mohamed Binshams, Bahrain University, Bahrain

9:30 am – 9:40 am, Tuesday: WELCOME ADDRESS
Dr. Miroslav Holeček
Rector
University of West Bohemia
Pilsen, Czech Republic

9:40 am – 10:20 am, Tuesday: OPENING KEYNOTE I
Dipl. Ing. Wolfgang Weissler
CEO Digital Factory & Process Industries and Drives
Siemens Czech Republic

10:20 am – 11:00 am, Tuesday: OPENING KEYNOTE II
Prof. Ing. Josef Basl, CSc.
Department of Industrial Engineering and Management
Faculty/Institute of Faculty of Mechanical Engineering
University of West Bohemia, Pilsen, Czech Republic

11:00 am - 11:30 am: Networking Break

July 23, 2019 (Tuesday)
Session: 11:30 am – 1:00 pm

11:30 – 1:00, TUESDAY  Global Engineering Education II  Room 1
Session Chair: Dr. Galal M. Abdella, Mechanical and Industrial Engineering Department, Qatar University, Doha, Qatar

11:30 – 12:00 (Tuesday)
Vinayak A Drave
Senior Research Fellow
Department of Industrial & Management Engineering
Indian Institute of Technology (IIT)
Kanpur, India

Engineering Education in India
12:00 – 12:30 (Tuesday)

Dr. Galal M. Abdella
Assistant Professor
Mechanical and Industrial Engineering Department
College of Engineering
Qatar University
Doha, Qatar

*Engineering Education in Qatar*

12:30 – 1:00 (Tuesday)

Patrick Pötters, Christoph Szedlak and Bert Leyendecker
University of Applied Sciences Koblenz
Faculty of Operations Management
Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

**ID 271 Prevalence Study of Lean Management in Academic Education**
Patrick Pötters, Christoph Szedlak and Bert Leyendecker, University of Applied Sciences Koblenz, Faculty of Operations Management, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

11:30 – 1:00, TUESDAY Industry Solutions II Room 2

Panel Chair: Dr. Luis Rocha Lona, National Polytechnic Institute of Mexico, Mexico City, Mexico

11:30 – 12:00 (Tuesday) – Room 2

Itumeleng Gladwell Motlhatlhedi and Hannelie Nel
Postgraduate School of Engineering Management
Faculty of Engineering, the Built Environment
University of Johannesburg South Africa

**ID 165 Investigation of Project Delay in Construction Projects in the South African Rail Industry**
Itumeleng Gladwell Motlhatlhedi and Hannelie Nel, Postgraduate School of Engineering Management Faculty of Engineering, the Built Environment University of Johannesburg South Africa

12:00 – 12:30 (Tuesday) – Room 2

Derakhshanalavijeh and Mauro Mancini
Department of Management, Economics and Industrial Engineering
Politecnico di Milano
Milan, Italy

**ID 408 Rebuilding Organization’s Legitimacy in the Eyes of Local Community; Case Study of Oil and Gas Megaprojects**
Derakhshanalavijeh and Mauro Mancini, Department of Management, Economics and Industrial Engineering, Politecnico di Milano, Milan, Italy

12:30 – 1:00 (Tuesday) – Room 2

Jay Daniel
Derby Business School
University of Derby
Derby, UK

11:30 – 1:00, TUESDAY Undergraduate Research Competition Room 3

Session Chair: Judging Committee Chair

**ID 131 A Scalable Approach for Vehicle Routing Problem with Reinforcement Learning**
C.Y. Lo and C.K. M. Lee, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University Hong Kong, China

**ID 508 Design, Fabrication and Testing of a 3D Printer**
Mohamad Hasan Bin Tasneem and Gamal Talal, Mechanical and Industrial Engineering Department, College of Engineering, Sultan Qaboos University, Sultanate of Oman

**ID 545 Case Study: Lean and Green Technique of Manufacturing Industries**
Vatsal Vaghasia, Pandit Deendayal Petroleum University, India

**ID 127 Assessment of Wind Farm Allocation Criteria**
Mawadda M. Samkari and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, Kingdom of Saudi Arabia
11:30 – 1:00, TUESDAY  Graduate Paper Competition  Room 4
Session Chair: Judging Committee Chair

ID 340  **Analysis of Credit Scoring Using Particle Swarm Optimization Algorithm in Logistic Regression Model**
Ulfa Rahmani, Sukono, Riaman and Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Science, Universitas Padjadjaran, Indonesia.
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia.

ID 395  **A Review of Adomian Decomposition Method and Applied to Differential Equations**
Ira Sumiati, Endang Rusyaman, Sukono and Subiyanto, Department of Marine Science, Faculty of Fishery and Marine Science, Universitas Padjadjaran, Indonesia.
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 486  **Enhance the Thermal Properties of Poly-Propylene Polymer**
Nawaf Almohamdi, Department of Mechanical Engineering, Yanbu, Industrial College, Yanbu, Zip 46429, KSA
Ashraf M. Alghanmi, Mechanical and Industrial Engineering Department, Yanbu Industrial College, Yanbu, Saudi Arabia

11:30 – 1:00, TUESDAY  Sustainability and Supply Chain  Room 5
Session Chair: Shaikha Binkhatim, University of Sharjah, Sharjah, UAE

ID 529  **An Assessment of Presence of Palm Kernel Shell Ashes and Sawdust Ashes on Strength Properties of Lateritic Soil**
Timothy Laseinde, Department of Mechanical & Industrial Engineering, University of Johannesburg, RSA
Ifetayo Olufemi, Postgraduate School of Engineering Management, University of Johannesburg, RSA

ID 067  **A Qualitative Review of the Contribution of Military Leadership to the Humanitarian Supply Chain Operations**
Martin Paul Tynan, School of Economics, Finance and Management, University of Bristol, UK
Guru Prabhakar, Faculty of Business & Law, UWE, UK
Tahir M Nisar, Southampton Business School, University of Southampton, UK

ID 097  **Mapping Sustainable Development onto Project Management Processes**
Rana Musa and Hamdi Bashir, University of Sharjah, United Arab Emirates

11:30 – 1:00, TUESDAY  Project Management  Room 6
Session Chair: Kibala Adiam, University of Johannesburg Johannesburg, South Africa

ID 090  **Project Portfolio Selection in Indian Auto Component Industry: An Empirical Study**
Vilas J Kharat, National Institute of Industrial Engineering Mumbai, India
Tejashree Bendale, Electronics Department, UMIT Mumbai, India

ID 099  **Project Constraints in a Manufacturing Environment - Beyond the Iron Triangle**
Moloko Masopoga and A Wessels, JHC Pretorius, University of Johannesburg, South Africa

ID 100  **An Empirical Study of Risk Management in Project Portfolio: A case of Indian Auto Component Industry**
Vilas J Kharat, National Institute of Industrial Engineering, Mumbai, India
Tejashree Bendale, Electronics Department, UMIT, Mumbai India

ID 133  **Challenges Facing Projects due to a Lack of Resources**
Bervesh Bhika and Jan Harm C Pretorius, University of Johannesburg, Auckland Park, Johannesburg, Gauteng, South Africa

ID 104  **Delay Analysis in Energy Utility Maintenance Project**
Kibala Adiam and Hannelie Nel, University of Johannesburg Johannesburg, South Africa

1:00 – 2:30 pm: Tuesday Buffet Networking Lunch

1:30 – 2:00 pm, LUNCH KEYNOTE

**Dr. Zain Tahboub**
Chief Advisor, Dubai Aviation Engineering Projects
Dubai, United Arab Emirates
### Session – Tuesday (July 23): 2:30 – 4:00 pm

#### Global Engineering Education III

**Room 1**

**Session Chair:** Ms. Malini K V, Sri Sairam College of Engineering, Anekal, Bangalore, India

- **2:30 – 3:00 (Tuesday)**
  - **Abdelaziz Berrado, Ph.D.**
    - Department Chair and Associate Professor
    - Industrial Engineering Department
    - EMI School of Engineering
    - Mohamed V University, Rabat, Morocco
  - *Engineering Education in Morocco*

- **3:00 – 3:30 (Tuesday)**
  - **Dr. Bhaba R. Sarker**
    - Elton G. Yates Distinguished Professor of Engineering
    - Louisiana State University
    - Baton Rouge, Louisiana, USA
  - *ID 542 Managing Student Technology Innovations of Rural Engineering Campuses*

- **3:30 – 4:00 (Tuesday)**
  - **Ms. Malini K V**
    - Head (EEE)
    - Sri Sairam College of Engineering
    - Anekal, Bangalore, India

#### Industry Solutions III

**Room 2**

**Session Chair:** Simon Peter Nadeem, University of Derby, U.K.

- **2:30 – 2:50 (Tuesday)** – **Room 2**
  - **Yinping Mu**
    - School of Management and Economics
    - University of Electronic Science and Technology of China
    - Chengdu 610054, China
  - *ID 156 Exchange Rate Risk Hedging for a Global Supply Chain of Nonstorable Commodity in Presence of a Spot Market*
    - Yinping Mu, University of Electronic Science and Technology of China, China
    - Xiaoqiang Cai, The Chinese University of Hong Kong, Shenzhen, the Shenzhen Research Institute of Big Data, Guangdong, China
    - Xiaowo Tang, School of Management and Economics, University of Electronic Science and Technology of China, China

- **2:50 – 3:10 (Tuesday)** – **Room 2**
  - **Georgy Klushin**
    - Center for Entrepreneurship and Innovation
    - Skolkovo Institute of Science and Technology
    - Skolkovo Innovation Center, Bolshoy Boulevard 30, building 1
    - Moscow 121205, Russia
    - Georgy Klushin, Skolkovo Institute of Science and Technology, Russia

- **3:10 – 3:30 (Tuesday)** – **Room 2**
  - **Dr. Agung Sutrisno**
    - Assistant Professor
    - Department of Mechanical Engineering
    - Sam Ratulangi University
    - Manado, Indonesia
  - *ID 174 Categorization of Supply Chain Sustainability Risks in SMEs: A Preliminary evidence from a Developing Country*
    - Agung Sutrisno and Charles Punuhsingon, Department of Mechanical Engineering, Sam Ratulangi University, Manado, Indonesia
    - Vikas Kumar, Bristol Business School, University of the West of England, Bristol, United Kingdom
    - Dwi Handayani, Department of Industrial Engineering, Universitas Islam Indonesia, Yogjakarta, Indonesia
    - Rudi K. Arief, Department of Mechanical Engineering, Universitas Muhammadiyah Sumatera Barat, Bukit Tinggi, Indonesia
    - Shinta Virdhian, Balai Besar Logam dan Mesin, Jl. Sangkuriang, Indonesia
**Circular Economy Practices in Manufacturing Sector – A Case Study**

**2:30 – 4:00, TUESDAY**  
**Human Factors and Ergonomics**  
**Room 3**

**ID 023**  
Ergonomic Intervention Improves in Productivity, Health and Safety of Unorganized Sectors at India  
Tirthankar Ghosh, Sri Sri University, Cuttack, Odisha, India

**ID 331**  
An Ergonomics Study on the Prevalence of Work-related Musculoskeletal Disorders (WMSDs) and its Associated Risk Factors among the Brickfield workers  
Banibrata Das, Department of Physiology, South Calcutta Girls’ College, University of Calcutta, India

**ID 382**  
Preliminary Study on Neural Correspondence of Human Trust  
Seeung Oh, Young Seong and Eui Park, North Carolina A&T State University, USA

**ID 550**  
Ergonomic Evaluation of Vehicle License Plates used in Saudi Arabia  
Ahmed M. El-Sherbbeeny and Woo-Hyung Park, Industrial Engineering Department, King Saud University, Riyadh, 11421, KSA

**ID 570**  
Empowerment Community in Buru Regency  
M Chairul Basrun, Universitas Iqra Buru, Department of Agricultural and Forestry, Maluku 97571, Indonesia  
M Mukaddar and Abdul Latif, Universitas Iqra Buru, Faculty of Islamic Religion, Namlea, Maluku, Indonesia  
Syaifil Rachman and Lutfi Rumikel, Universitas Iqra Buru, Department of Law, Namlea, Maluku 97571, Indonesia  
Riki Bugis, Universitas Iqra Buru, Department of Literature, Namlea, Maluku 97571, Indonesia  
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

**ID 050**  
On Board Unit for Electronic Toll Collection in Supporting Make Indonesia 4.0  
Hwi-Chie Ho, Laili Latifa, Claudia Clarice and Arvin Raditya, Bina Nusantara University, Tangerang, Banten, Indonesia

**2:30 – 4:00, TUESDAY**  
**Service Systems and Service Management**  
**Room 4**

**ID 157**  
A Case of Creative Mixed Method Research to Develop a Total Quality Service (TQS) Framework  
Rigard Johan Steenkamp, Department of Operations Management, University of South Africa, Pretoria, RSA

**ID 270**  
Ecotouristic Foresight in the Colombian Post-Conflict for the Sustainability of the Tourist Service with Emphasis on Ecological Marketing - Buenaventura Case  
William E. Mosquera-Laverde and Claudia P. Gomez-E., Faculty of administrative and economic sciences, Universidad Cooperativa de Colombia, Bogotá D.C., Colombia  
Oscar A. Vásquez-Bernal, School of Basic Sciences; Technology and Engineering, Universidad Nacional Abierta y a Distancia – UNAD, Bogotá D.C., Colombia

**ID 417**  
Evaluating Service Blueprint as Life Cycle Costing Support Tool for Service Cost Estimation  
Javed Lank, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan  
Maryam Kalhoro, Miss, University of Sindh, Pakistan

**ID 339**  
On the Impact of Cargo Capacity and Cost on Shipment Consolidation  
Sila Cetinkaya, EMIS Department, SMU, Dallas, TX, USA  
Liqing Zhang, United Airlines, Houston, TX, USA

**2:30 – 4:00, TUESDAY**  
**Lean Six Sigma**  
**Room 5**

**ID 223**  
A Case Study on Effectiveness of 4S Implementation in a Machine Shop  
Kapil Gupta and Valentine Khumalo, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

**ID 224**  
Implementation of Shitsuke for Sustaining with SS Culture in a Mechanical Workshop  
Kapil Gupta and Valentine Khumalo, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

**ID 278**  
Application of Six Sigma in Improving the Quality of Recyclable Polymer in Collection Centers  
Andrés R. Cruz Herrera, Jeanette del P. Ureña Aguirre and Leandro L. Lorente Leyva, Facultad de Ingenieria en Ciencias Aplicadas, Universidad Técnica del Norte, Ibarra, Ecuador
ID 032  Design of an Automated Vegetable Cutter and Slicer  
Tawanda Mushiri, University of Zimbabwe Harare, Harare, Zimbabwe

ID 195  Developing a Discrete Event Simulation Methodology to support a Six Sigma Methodology  
Anees Hussain, Jose Eduardo Munive-Hernandez and Felician Campean, Faculty of Engineering & Informatics University of Bradford Bradford, UK

2:30 – 4:00, TUESDAY  
Product Design and Development  
Room 6
Session Chair: Yugowati Praharsi, Shipbuilding Institute of Polytechnic Surabaya, Sukolilo, Surabaya 60111, Indonesia

ID 059  Development of an Evaporative Cooler for Small Scale Agro Producers  
Ignatio Madanhire, Clement Shonhwa and Ngonidzashe Mhuka, University of Zimbabwe, Department of Mechanical Engineering, Zimbabwe.  
Charles Mbohwa, University of Johannesburg, Johannesburg, South Africa

ID 061  Development of a Portable Motorized Car Jack  
Ignatio Madanhire and Tapiwa Chatindo, University of Zimbabwe, Department of Mechanical Engineering, Zimbabwe  
Charles Mbohwa, University of Johannesburg, Johannesburg, South Africa

ID 247  A Portable Workstation: Implementing Techniques of Product Design Process  
Nadia Tanzeem, Nafisa Ali Anika, Zareen Tasnim Safa, Ibrahim Hossain and Malika Huq, Dept. of Industrial and Production Engineering, Military Institute of Science and Technology, Mirpur Cantonment, Dhaka-1216, Bangladesh

ID 316  The Comparison of Characteristics Profile of the Traditional Fishing Boats in Lamongan, Probolinggo, and Pasuruan, Indonesia  
Yugowati Praharsi, M. Abu Jami’in and Gaguk Suhardjito, Shipbuilding Institute of Polytechnic Surabaya, Sukolilo 60111, Surabaya, Indonesia  
Hui-Ming Wee, Chung Yuan Christian University, Chung Pei Road No. 200, Chung Li City 32023, Taiwan

ID 109  Investigations of Corrosion Resistance and Mechanical Characterization of TIG Welded Aluminum Alloy 2219  
Qasim Ali and Waqas Ahmad, Department of Mechanical Engineering, University of Sargodha, Pakistan

ID 577  Using the Design Thinking into Product Development Process: A Case Study in Bio-pharmaceutical Firm  
Evo Sampetua Hariandja, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang, INDONESIA  
Nurafni Rubiyanti, School of Communication and Business, Telkom University, Bandung 40257, INDONESIA  
Rintan Saragih, Department of Management Faculty of Economics, Universitas Methodist Indonesia, Medan 20152, Indonesia

ID 344  The Stability Test of Traditional Fishing Boats in East Java, Indonesia based on the International Maritime Organization Standard  
Yugowati Praharsi, M. Abu Jami’in and Gaguk Suhardjito, Shipbuilding Institute of Polytechnic Surabaya, Sukolilo, Surabaya 60111, Indonesia  
Hui-Ming Wee, Department of Industrial and System Engineering, Chung Yuan Christian University, Chungli City 32023, Taiwan

4:00 – 4:30: Networking Break

Session – Tuesday (July 23): 4:30 – 6:00 pm

4:30 – 6:00, TUESDAY  
Global Engineering Education IV: Panel Session  
Room 1
Panel Chair: Dr. Abu Masud, Wichita State University, USA

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

Panel Speakers

doc. Ing. Milan Edl, Ph.D.  
Dean  
Faculty of Mechanical Engineering  
University of West Bohemia  
Pilsen, Czech Republic

Dr. António Grilo  
Associate Professor with Habilitation  
Head of the Department of Mechanical and Industrial Engineering at FCT NOVA  
Director of UNIDEEMI and Director of the PhD Program in Industrial Engineering  
UNIDEEMI- Research Centre hosted by the Department of Mechanical and Industrial Engineering (DEMI), of NOVA School of Science and Technology of Lisbon Nova University  
Campus da Caparica, Portugal

4:30 – 6:30, TUESDAY  
Sustainable Operations and Supply Chain Management  
Room 2
Session Chair: João Basto, INESC TEC – Technology and Science, Faculty of Engineering, University of Porto, Porto, Portugal

ID 122  Understanding Supply Chain Resilience: A Dynamic Approach Using Theory of Constraints Current Reality Tree
**IEOM Pilsen Conference**

**PARALLEL SESSIONS**

**July 23-26, 2019**

Mohamed Hicham Salah Eddine and Abdelaziz Berradou, Research team AMIPS, Mohammed V University of Rabat, Morocco

Tanik Saikouk, International logistics and supply chain department, International University of Rabat, Morocco

**ID 194**  The Relationship between Price Satisfaction, Non-financial and Financial Performance

Aries Susanty and Atika Andriyani, Industrial Engineering Department, Diponegoro University, Campus Tembalang, Indonesia

**ID 228**  Integrating Production Assessment with PPAP – A QFD Approach

Chi-Shuan Liu and Horng-Chyi Horng, Department of Industrial Engineering and Management, Chaoyang University of Technology, Taichung, Taiwan

**ID 241**  Challenges in Managing Oil and Gas Supply Chain – An Exploratory Study

Masha Menhat, Jagan Jeevan and Izyan Munirah Mohd Zaideen, School of Maritime Business and Management, University of Malaysia Terengganu, 21030 Kuala Terengganu, Malaysia

Yahaya Yusuf, Lancashire Business School, University of Central Lancashire, Preston, Lancashire, UK

**ID 244**  Optimal Design of Additive Manufacturing Supply Chains

João Basto and José Soeiro Ferreira, INESC TEC – Technology and Science, Faculty of Engineering, University of Porto, Porto, Portugal

Enzo Frazzon, Industrial and Systems Engineering Department, Federal University of Santa Catarina, Florianópolis, Brazil

Samuel Moniz, Department of Mechanical Engineering, University of Coimbra, Coimbra 3030-788, Portugal

**4:30 – 6:00, TUESDAY**

**Competitions**

**Room 3**

**SUPPLY CHAIN COMPETITION**

**ID 211**  Making the Profitability Paradox of Bad Banks: A Qualitative System Dynamics Approach

Mahdi Bastan, Sareh Akbarpour and Alimohammad Ahmadvand, Department of Industrial Engineering, University of Eyvanekey, Garmsar, Iran

**ID 236**  A Two-Step Stochastic Optimization and Simulation Approach for Scheduling Operating Rooms in an Ophthalmology Surgery Department

Mohsen Davoudkhani, Institut National de la Recherche Agronomique, F-35590 Saint Gilles, Paris, France

Mahdi Hamin, Reza Tavakkoli-Moghaddam, Mahdi Bastan, Mohammad Mahdi Nasiri and Hamed Shakouri Ganjavi, School of Industrial Engineering, College of Engineering, Tehran, Iran

**MASTER THESIS COMPETITION**

**ID 115**  Thermal Radiation Effects on Mixed Convection Flow in Tightly Coiled Curved Pipe for Full Range of Richardson Number

Robina Yasmeen, Department of Technical Education, University of Sargodha, Sargodha, Pakistan

**ID 303**  A Study of Workforce Assignment Problem in Lean Factory on Machine Tool Industry

Ji-Jung Lyu, Ching-Hsiang Tung and Chia-Wen Chen, Department of Industrial and Information Management, National Cheng Kung University, Tainan, Taiwan

**Production Planning and Control**

**Room 4**

**4:30 – 6:00, TUESDAY**

Session Chair: Bhaba R Sarker, Louisiana State University, Baton Rouge, LA, USA

**ID 072**  Algorithm for Integrated Problem of Workforce Allocation and Parallel Machine Scheduling with Sequence-dependent Setup and Machine Eligibility Restrictions

Anan Mungwattana and Arajabhorn Chattavali, Department of Industrial Engineering, Kasetsart University, Bangkok, Thailand

**ID 096**  End to End Supply Chain with Kankan (Pull System) and Sequencing on Production Lines

Jabir Anf and Zakaria Tobi, École Nationale des Sciences Appliquées (ENSA) Université Abdelmalek Essaâdi Tetouan, Morocco

**ID 217**  An Approach of Designing Robust Plant Layout Using Genetic Algorithm

Rahul Sakhawade, Udit Narayan Sahu, Harendra Kumar Narang and Mridul Singh Rajput, Department of Mechanical Engineering, National Institute of Technology, Raipur, Chhattisgarh, India

**ID 251**  Two-stage Meta-Heuristic Algorithm for Parallel Machine Scheduling with Additional Resource Input in Shipyard Manufacturing

Soonkyo Lee, Yoonho Seo and Taesu Cheong, School of Industrial Management Engineering, Korea University, Seoul, South Korea

Seokhyun Chung, Industrial & Operations Engineering, University of Michigan, Ann Arbor, MI, USA

**ID 328**  Optimizing Production Overtime Period and Backorder Quantity in Joint Production and Maintenance Scheduling

Chelliah Arun Vijayanathan and Bhaba R Sarker, Department of Mechanical and Industrial Engineering, Louisiana State University, Baton Rouge, LA 70803, USA

Md. Shahriar J. Hossain, Department of Engineering Technology, Northwestern State University, Natchitoches, LA 71497, USA

**Quality Control**

**Room 5**

**4:30 – 6:00, TUESDAY**

Session Chair: Amit Raj Singh, National Institute of Technology, Raipur, Chhattisgarh, India

**ID 107**  Outsourcing Business Activities: A Decision Tree for Systematic Evaluation
Muhammad Ahmad Tauqeer and Knut Erik Bang, Department of Mechanical and Structural Engineering and Material Science, University of Stavanger, Norway

ID 062 Computational Intelligence for Process Optimization in Casting Industry
Li-Fei Chen, Fu Jen Catholic University, New Taipei City, Taiwan
Chao-Ton Su and Ya-Yu Dong, National Tsing Hua University, Taiwan

ID 092 Exponentially Weighted Moving Average Chart Employing Curtailed Inspection for Monitoring Attributes
Salah Haridy, Mohammad Shamsuzzaman and Imad Alsyouf, University of Sharjah, United Arab Emirates
Ahmed Maged, Benha Faculty of Engineering, Benha University, Benha, Egypt

ID 102 Effective X-bar&R Chart for Monitoring Aluminum Extrusion Process
Salah Haridy, Imad Alsyouf and Mohammad Shamsuzzaman, University of Sharjah, Sharjah, United Arab Emirates
Ahmed Maged, Benha Faculty of Engineering, Benha University, Benha, Egypt

ID 118 Critical Success Factors for Improving Quality Culture in A Coal Testing Division
M.J Raseth, A Wessels and JHC Pretorius, Postgraduate School of Engineering Management, University of Johannesburg, South Africa

ID 487 Assessing Critical Failure Factors for Implementing Lean Six Sigma Framework in Indian Manufacturing Organizations
Vikas Swarnakar, Shailesh Vaidya, Anil Kr. Tiwari and A. R. Singh, Department of Mechanical Engineering, National Institute of Technology, Raipur 492010, Chhattisgarh, India

4:30 – 6:00, TUESDAY  Business Management  Room 6

Session Chair: Anjali Sharma, Indian Institute of Technology-Kanpur, India

ID 284 Important Conditions for Integrating a Logistics Cluster
Teresa Verduzco-Garza, Engineering & Technologies Division, Department of Engineering, Universidad de Monterrey, San Pedro Garza García, NL, 66238, Mexico

ID 330 The Impact of Carbon Accounting on Corporate Financial Performance: Evidence from the Energy Sector in Jordan
Ahmad Ababneh, Department of Management, Sapienza – University of Rome, Via del Castro Laurenziano 9, Rome 00161, Italy

ID 334 A Method to Measure Logistic Interoperability using Structural Equation Modelling
Sandro Brelav Santiago, Department of Administration and Management, Federal University of Amazonas, Manaus, Amazonas, Brazil
Fabiana Lucena de Oliveira, Department of Economics, State University of Amazonas, Manaus, Amazonas, Brazil
Carlos Manoel Taboada Rodriguez, Department of Production and Systems Engineering, Federal of University of Santa Catarina, Florianópolis, Santa Catarina, Brazil
Ileana G. Pérez Vergara, Group Director of New Technologies Research Labor and Management, Universidad San Buenaventura Cali, Cali, Colombia

ID 418 Impact of Perceived Deception on Customer Satisfaction and Loyalty Intentions
Maryam Kalhoro and Javed Larik, Mehran University Engineering and technology, Jamshoro, Sindh, Pakistan

ID 576 Linking Organizational Learning, Organizational Culture, and Market Orientation on Innovation Culture: A Case Study in Indonesian MSME’s
Evo Sampetua Hariandja, Department of Management Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang-15811, Indonesia

ID 454 Culture & Personality: Directional influence on Consumer Switching
Anjali Sharma and R.R.K. Sharma, Dept. of Industrial & Management Eng., Indian Institute of Technology-Kanpur, India

July 24, 2019 (Wednesday)
Session: 8:00 – 9:30 am

8:00 – 9:30, WEDNESDAY  Global Engineering Education V  Room 1

Session Chair: Shaligram Pokharel, Qatar University, Doha, Qatar

8:00 – 8:30 (Wednesday)
Shaligram Pokharel
Professor, Department of Mechanical and Industrial Engineering
Qatar University
Doha, Qatar

8:30 – 9:00 (Wednesday)

Professor Charles Mbohwa
Professor, Faculty of Engineering and the Built Environment
University of Johannesburg
South Africa
Engineering Education in Africa

9:00 – 9:30 (Wednesday)

Dr. Y. Vijaya Kumar  
Principal  
Sri Sairam College of Engineering (SSCE)  
Sai Leo Nagar, Anekal, Bengaluru, India

**ID 543 An Optimum Way to Achieve Competitive Excellence through Project Based Learning**

8:00 – 9:30, WEDNESDAY  
Room 2  
Session Chair: E. Innocents Edoun, University of Johannesburg, Pretoria, Gauteng, South Africa

**ID 178 The Masking Effect due to Industrial Noise and Applying the Method of the Level of Interference with Speech**  
Abderrezak Hocine, Mechanical Engineering Research Laboratory, Badji Mokhtar Annaba University, Algeria

**ID 018 Adoption of Eco cook stoves as a Way of Improving Energy Efficiency**  
Mercy Manyuchi, University of Johannesburg, Johannesburg, South Africa

**ID 068 Application of Multilayer Perceptron Neural Network Model for Predicting Industrial Sector’s Energy Consumption**  
Oludolapo Olanrewaju, Durban University of Technology, Durban NA, South Africa

**ID 110 An Integrated Statistical Long-Term Energy Modelling for Sustainable Energy Mix in Pakistan**  
Muhammad Ali Shaker, University of Sargodha, Pakistan.  
Imran Zahid, Department of Mechanical Engineering, Government College University, Faisalabad, Pakistan

**ID 136 Steady State, Transient and Harmonic Behavior Analysis of Home Appliances**  
Abdul Sattar Larik and Mukhtiar Ahmed Mahar, Department of Electrical Engineering, Mehran University of Engineering and Technology, Sindh, Pakistan

**ID 151 Towards an Efficient Residential Electricity Consumption: An Assessment of the Effectiveness of Residential Electricity Efficiency-Incentive Subsidies Reform in Saudi Arabia**  
Ramzi Alahmadi, Department of Industrial Engineering Taibah University AL Madinah, Saudi Arabia

8:00 – 9:30, WEDNESDAY  
Sustainable Operations and Supply Chain Management  
Room 3  
Session Chair: Rajesh Kr Singh, Management Development Institute, Gurgaon, India

**ID 267 Investigating the Impact of Green Supply Chain Management on Organisational Performance. A Case of Selected Johannesburg-based Corporates**  
Amina Mumba, E.J Edoun and Bakam Fotso Genevieve, The University of Johannesburg, South Africa

**ID 280 A Simulation Approach for Spare Parts Supply Chain Management**  
Narciso Caldas and Jorge Pinho de Sousa, Centre for Enterprise Systems Engineering, INESC TEC, Porto, Portugal  
Smyone G. S. Alcalá, Faculty of Sciences and Technology, Federal University of Goiás, Aparecida de Goiânia, Goiás, Brazil  
Enzo Frazzon, Industrial and Systems Engineering Department, Federal University of Santa Catarina, Florianópolis, Brazil  
Samuel Moniz, Centre for Mechanical Engineering, Materials and Processes, University of Coimbra, Coimbra, Portugal

**ID 360 An Assessment on the Implementation of Sustainable Supply Chain Management (Green Public Procurement) A case study in the city of Johannesburg Municipality**  
Kanakana Ernest Mutenda, Faculty of Engineering and the Built Environment University of Johannesburg, Auckland Park, 2006, South Africa

**ID 361 An Investigation of Supply Chain Operational Improvements for Small and Medium Enterprises (SMEs): A UK Manufacturing Case Study**  
Fredrick Buetel Sawe and Jay Daniel, Derby Business School, University of Derby, Kedleston Road, Derby, DE22 1GB, UK

**ID 377 Sustainable Manufacturing Practices, Sustainable Performance and the Moderating Effect of Innovation**  
K.K. Thilini Suvimali and Nithya P. Parameswara, Department of Decision Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka.

**ID 435 Sustainable UK Food Manufacturer Supplier Selection: A Conceptual Framework for the Responsive Supply Chain in the Era of Industry 4.0**  
Stella Sofianopoulou and James Hennerley, Faculty of Business, Law and Tourism, The University of Sunderland, St Peters Campus, St Peters Way, Sunderland SR6 0DD, UK

**ID 327 Ranking of the Factors for Resilient Humanitarian Supply Chain: A TOPSIS Approach**  
Rajesh Kr Singh, Management Development Institute, Gurgaon, India  
Ayush Gupta, Production and Quantitative Methods Area, Indian Institute of Management Ahmedabad, Ahmedabad, India

8:00 – 9:30, WEDNESDAY  
Logistics, Transport and Traffic Management  
Room 4
Session Chair: Anjali Sharma, Indian Institute of Technology-Kanpur, India

ID 272 Use of Web Application in the Reactivation of Freight Intermodal Transport in Colombia
Nelson David Navarro Díaz, National University of Colombia
Jefferson Rubiano, Director, Universidad de Cundinamarca
Juan Pablo Castrellon Torres, Universidad Nacional de Colombia

ID 317 Towards Using Advanced Analytics for Port Performance Management
Sara El Mekkaoui and Abdelaziz Berrado, Equipe AMIPS, Ecole Mohammadia d’Ingénieurs., Mohammed V University of Rabat, Morocco

ID 346 Reviewing the Use of Multi-Criteria Group Decision Making Methods for Transportation Problems: Case of Transport Mode Selection Problem
Afaf Haial, Abdelaziz Berrado, Research team AMIPS, Ecole Mohammadia d’Ingénieurs., Mohammed V University of Rabat, Morocco
Loubyna Benabbou, Management Sciences Department, UQAR-Lévis Campus, Lévis (Québec). Canada

ID 416 A Clustering Algorithm for Location Routing Problem with Outsourced Delivery
Junko Hosoda and Takashi Irohara, Faculty of Science and Technology, Sophia University, Tokyo, Japan

ID 485 Developing a Risk Covering Based Model for Locating Rescue and Relief Centers in of Hazardous Materials Transportation (An Empirical Study: Guilan Province of Iran)
Hamideh Baghaei Daemi, Abbas Mahmoudtabadi and Sedigheh Rezvani Chomachar, M.Sc. in Industrial Engineering, MehrAstan University, Iran

8:00 – 9:30, WEDNESDAY Systems Dynamics Room 5

Session Chair: Mahdi Bastan, University of Tehran, Iran

ID 111 A System Dynamics Model for Risk Assessment of Strategic Customer Performance Perspective in Power Plants
Sahar Mohammad AL Mashaqbeh and Jose Eduardo Munive–Hernandez, Faculty of Engineering and Informatics University of Bradford, UK
Mohammad Khurshid Khan, Abdul Wali Khan University, Mardan, KP, Pakistan

ID 123 The Impact of Payroll delays on The Financial Resilience of a Multi-echelon Supply Chain: A System Dynamics simulation Approach
Mohamed Hicham Salah Eddine and Abdelaziz Berradou, Research team AMIPS, Mohammed V University of Rabat, Morocco
Tarik Saikouk, International Logistics and Supply Chain Department, International University of Rabat, Morocco

ID 333 Understanding Capacity Planning Through a Dynamic Performance Management Approach for Public Sector
Sebastián Villa-Rincón, Milton M. Herrera, Faculty of Economic Sciences, Nueva Granada Military University, Bogotá, Colombia

ID 388 Mistakes in System Dynamics Models: An Educational Issues from the Systems Engineering Perspective
Vladimír Bureš, Tereza Otčenášková and Marek Zanker, Faculty of Informatics and Management, University of Hradec Kralove, Hradec Kralove, Czech Republic

8:00 – 9:30, WEDNESDAY Operations Management Room 6

Session Chair: Bachtiar H. Simamora, Bina Nusantara University, Indonesia

ID 434 Inverted Hockey Stick Effect In The European Industry: Inventory Reduction In The Last Fiscal Quarter
Nuno Guedes Vieira, Catarina Delgado and José António Moreira, Faculty of Economics, University of Porto, Porto, Portugal

ID 437 Operational Excellence and Feasibility Analysis of Raw Material
Jacobo Tijerina Aguilara, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

ID 453 Change Management as the bridge from Operational to Organizational Excellence
Nancy Lucero Tapia Ruiz, Jacobo Tijerina Aguilara, Daniel Ulises Moreno-Sánchez, Josué Francisco Xavier Martínez Morales, Diego Andrés Martínez Treviño and Arlette Yari Aguilar-Viliarreal, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México

ID 501 The Impact of Learning Orientation on Innovation Performance: Mediating Role of Operations Strategy and Moderating Role of Environmental Uncertainty
Paria Jelhoony and Younis Jabarzadeh, Faculty of Economics and Management, University of Tabriz, Tabriz, Iran
Vikas Kumar, Faculty of Business and Law (FBL), University of the west of England Bristol, Bristol, UK
Jose Arturo Garza-Reyes, Derby Management School, University of DERBY, Derby, England

ID 403 Assessing Due Date Fulfillment for Lumber Manufacturing Production Orders
Francisco P. Vergara, Wood Engineering Department, Faculty of engineering, The University of Bio-Bio, Collao Avenue, Concepción, Chile

ID 423 Teaching Assistantship Assignment Optimization using Hungarian Algorithm – A Case Study
Chandra Mouli R. Madhuranthakam and Ali Elkamel, Chemical Engineering Department, Abu Dhabi University, Abu Dhabi, United Arab Emirates
Mukhtar Al-Ismaily, Chemical Engineering Department, University of Waterloo, Waterloo, Ontario, Canada

ID 472 Modelling and Mapping University Business Process
Bachtiar H. Simamora, Leader Performance Excellence Reasearch Group, Bina Nusantara University, Indonesia
Natalia Sonata, Bina Nusantara University, Indonesia

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

Dr. Seifedine Kadry
10:20 – 11:00 am: **Wednesday Morning Keynote II**

**Petr Nekolný**  
Valeo  
Prague, Czech Republic

11:00 – 11:30 – Networking Break - Exhibition Hall

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**July 24, 2019 (Wednesday)**

**Session: 11:30 am – 1:00 pm**

**11:30 – 1:00, WEDNESDAY**  
**Global Engineering Education VI**  
**Room 1**

Session Chair: Leslie Monplaisir, Wayne State University, Detroit, MI, USA

11:30 – 11:55 (Wednesday) - Room 1

*Jiří Patermann*  
Prague, Czech Republic

*Title of the Presentation: How to Measure Efficiency Efficiently*

11:55 – 12:10 (Wednesday) - Room 1

*Carlos Ernani Fries, Lucas Bonomini de Luna, Ricardo Giglio*  
Department of Production and Systems Engineering  
Federal University of Santa Catarina, Campus Trindade  
Florianópolis, SC, Brazil

**ID 455 Efficiency Analysis of Public Primary Schools: The Case of a Medium-Sized Brazilian City**

12:10 – 12:35 (Wednesday) - Room 1

*Pramod Kinker, Shailesh Vaidya, A. R. Singh*  
Department of Mechanical Engineering  
National Institute of Technology  
Raipur, Chhattisgarh, India

Rajeev Jain  
Department of Mechanical Engineering  
Kalaniketan Polytechnic College  
Jabalpur, Madhya Pradesh, India

**ID 489 Prioritizing Service Quality Factors for Polytechnic Institutions as Per Student's Perception in the State of Madhya Pradesh, India**

12:35 – 1:00 (Wednesday) - Room 1

*Leslie Monplaisir, PhD*  
Professor and Chair  
Industrial and Systems Engineering  
Wayne State University  
Detroit, MI, USA

**ID 179 Global Executive Doctoral Program**

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**11:30 – 1:00, WEDNESDAY**  
**e-Business/Operations Management**  
**Room 2**

Session Chair: Priyanka C. Bhatt, Bennett University, Times of India Group, India

**ID 285**  
The Impact of Consumer Return Strategies on Omnichannel Retailing  
Prasenjit Mandal, Department of Operations Management, Indian Institute of Management Calcutta, Kolkata, 700104, India

**ID 277**  
SAP System Implementation: A Case Study in a Public Institution of Turkey  
Zeynep Caglar and Adnan Corum, Department of Industrial Engineering, Bahcesehir University, Istanbul, Turkey
ID 210  Activity-Based Costing (ABC) for Manufacturing Costs Reduction and Continuous Improvement: A Case Study
Dalal Al-Eidan, Maram Al-Ahmad, Maryam Al-Ajmi, Nour Al-Sayed, Reham Al-Ajmi and Walid Smew, Industrial Engineering Department, College of Engineering and Technology, American University of the Middle East, Kuwait

ID 561  Measuring the Effect of Entrepreneurial Competence and Social Media Marketing on Small Medium Enterprises’ Competitive Advantage: A Structural Equation Modeling Approach
Abdul Razak Munir, Jumidah Maming and Nuraeni Kadir, Department of Management, Faculty of Economics and Business, Hasanuddin University, Makassar, Indonesia
Gunawan Bata Ilyas, STIE AMKOP, Makassar, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 138  Technology Management and Adoption for Different E-tailer Formats: A Conceptual Framework
Vinayak A. Drave and R.R.K. Sharma, Department of Industrial Engineering, Indian Institute of Technology, Kanpur, India
Priyanka C. Bhatt, Learning Resource Centre, Bennett University, Times of India Group, India
Sharif, IIT Kanpur, India

11:30 – 1:00, WEDNESDAY  Sustainability in Supply Chain  Room 3
Session Chair: Shaligram Pokharel, Qatar University, Doha, Qatar

ID 008  A Sustainable Supply Chain of a Coal Power Plant
Asmaa El Bouri Camel, Faculty of Sciences & Techniques of Marrakesh Safi, Morocco.

ID 082  The Mediating Roles of Agility on the Impacts of Sustainability on the Performance of the Oil and Gas Supply Chains
Dan’Asabe Godwin Geyi, Yahaya Yusuf and David Hanley, Lancashire School of Business University of Central Lancashire Preston, UK

ID 106  Organizational Culture and Performance: Mediating Role of Sustainable Supply Chain Management Practices
Yahaya Yusuf and Tanimu Dandutse, University of Central Lancashire Preston, UK

ID 126  Optimal Inventory Control Policies for Avoiding Food Waste
Dimitrios Vlachos and Volha Yakovenka, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece
Ioannis Mallidis, Centre for Research and Technology Hellas, Hellenic Institute of Transport, Thessaloniki, Greece

ID 458  Use of Clean Technologies in Agribusiness in Mexico: A literature Review
Luis Rocha-Lona, Ingrid Yadibel Cuevas-Zuñiga and María del Rocío Soto-Flores, ESCA Santo Tomás, Instituto Politécnico Nacional, Mexico City, Mexico
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, The University of Derby, Derby, UK
Vikas Kumar, Faculty of Business and Law, University of West of England, UK

11:30 – 1:00, WEDNESDAY  Manufacturing  Room 4
Session Chair: M. Manyuchi, Ministry of Mines and Mining Development, Zimbabwe

ID 087  On some aspects of Dissimilar Welding of AISI 316L Austenitic Stainless Steel to AISI 409 Ferritic stainless-steel Weldment under Varied Input Parameters in Metal Inert Gas Welding
Titash Nandi, Nabendu Ghosh, Pradipt Kumar Pal and Goutam Nandi, Department of Mechanical Engineering Jadavpur University, India

ID 101  Parametric Optimization of WEDM for Inconel 800 using Artificial Neural Network
Prasenjit Dutta, NIT Agartala, Jirania, Tripura, India.
Subhash Chandra Panja, Jadavpur University, Kolkata, India.
Pawan Kumar Research Student Department of Production Engineering, NIT Agartala, Jirania, Tripura, India.
Debashis Sarkar, Principal Asansol Engineering College, Asansol, India

ID 220  Analysis and Optimization of Wire Electric Discharge Cutting Parameters for Micro-hardness of Ni55.8Ti Shape Memory Alloys
Neeraj Sharma and Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

ID 221  Taguchi Integrated Grey Relation based Multi-Performance Optimization for Productivity and Surface Quality in Dry Machining of SS304
Neeraj Sharma and Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

ID 222  Investigation on Wire Electric Discharge Cutting of Ni55.8Ti Shape Memory Alloy for Recast Layer Thickness
Neeraj Sharma and Kapil Gupta, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

ID 362  Gold Value Addition and Beneficiation for Women in the Mining Sector
M. Manyuchi, Department of Mining Research, Value Addition and Beneficiation, Ministry of Mines and Mining Development, Zimbabwe
C Mbohwa and Muzenda, Department of Chemical Engineering Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

11:30 – 1:00, WEDNESDAY  Energy and Resource Efficiency  Room 5
Session Chair: Vassilis Dedoussis, Department of Industrial Management & Technology, University of Piraeus, Greece

ID 246  Design of Glass Reinforced Concrete Wall for Improved Utilisation of Natural Light and Aesthetics without Compromising the Strength
ID 252 Performance Assessment of Buck Converter Using Single and Cascade Control Loops
Mukhtiar Ahmed Mahar and Abdul Sattar Larik, Department of Electrical Engineering, Mehran University of Engineering and Technology, Sindh, Pakistan

ID 391 Hybrid System Operating LED Streetlight
Aldawi Fayez, Department of Mechanical Engineering, Yanbu Industrial College, Yanbu, 4645, Saudi Arabia

ID 392 Energy Performance of Insulation Material
Aldawi Fayez, Department of Mechanical Engineering, Yanbu Industrial College, Yanbu, 4645, Saudi Arabia

ID 439 The Ecological Footprint of Polyethylene Teraphthalate. A Case Study
Jeanette del Pilar Ureña-Aguirre, Andrés Cruz Herrera and Javier Chiza López, Carrera de Ingeniería Industrial, Facultad de Ingeniería en Ciencias Aplicadas, Universidad Técnica del Norte, Colombia

ID 456 Greenhouse Gas (GHG) Emissions from Land Transports in Malaysia: Modelling and Policy Analysis
Shibli Azlan, Md. Mizanur Rahman, Hasan Mohd Faizal, Aminuddin Saat and Mazlan Abdul Wahid, Department of Thermo Fluids, School of Mechanical Engineering, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

ID 452 Technical and Environmental Assessment of Lignite-fired Electricity Generation in Greece
Vassilis Dedoussis, Department of Industrial Management & Technology, University of Piraeus, Greece

11:30 – 1:00, WEDNESDAY Data Analytics and Big Data Room 6
Session Chair: Jay Daniel, Derby Business School, University of Derby, Kedleston Road, Derby, UK

ID 053 Abnormal Behavior Detection and Analysis for Maintenance Outsourcing Cases
Yiyo Kuo, Ssu-Han Chen and Jin-Kwan Lin, Ming Chi University of Technology New Taipei City, Taiwan

ID 065 The Efficient and Precision Nature Within the Cyber Physical Systems (CPS) And Industry 4.0 Technologies in Industry Operations
Albert J. Viljoen, Andre Vermeulen and Jan-Harm C. Pretorius, University of Johannesburg, Gauteng, South Africa.

ID 105 Regression & Predictive Analytics of the Nigerian National Currency: A Machine (Deep) learning modelling of over thirty (1972-2018) years’ Historical data [Part I]
Owoeye, Oluwatosi Michael, Principal Investigator and Software Developer, Handsonlabs Software Academy,

ID 207 Customer Churn Prediction Using Artificial Neural Network: An Analytical CRM Application
Seyed Hossein Iranmanesh, Mahdi Hamid, Mahdi Bastan, Hamed Shakouri G. and Mohammad Mahdi Nasiri, School of Industrial Engineering, College of Engineering University of Tehran Tehran, Iran

ID 302 On Applying Big Data to Transform the Inspection Lines
JrJung Lyu, Chia-Wen Chen and Hong Yu Chen, Department of Industrial and Information Management, National Cheng Kung University Tainan, Taiwan

ID 396 Literature Review on Employment of Unmanned Aerial Vehicles for Disaster Management
Aarushi Doctor, Darshi Khirani and Vaibhav S. Narwane, Dept. of Mechanical Engineering, K. J. Somaiya College of Engineering, Mumbai, India
Rakesh D. Raut, Operations & Supply Chain Management Group, National Institute of Industrial Engineering (NITIE), Mumbai, India

1:00 – 2:30 – Networking Lunch Buffet

1:30 – 2:00 pm: Wednesday Lunch Keynote

Roman Žák
Chairman of the Board
Aimtec, Pilsen, Czech Republic

Session – Wednesday (July 24): 2:30 – 4:00 pm

2:30 – 4:00, WEDNESDAY Decision Sciences Room 1
Session Chair: Tariq Samad, Technological Leadership Institute, University of Minnesota, U.S.A.

ID 070 Fire Stations Manning and Business Planning Model: Case Study
Abdulaziz S Alzahrani, Suhail N Shami and Abdulelah T Alrifi, Organization Consulting Department, Saudi Aramco, Saudi Arabia.

ID 238 Selection of a biomass product using a hybrid approach of BW-PROMETHEE
ID 249  A Fuzzy Approach with Multi Criteria to the Evaluation of Health Facility Location
Pınar Miç and Z. Figen Antmen, Department of Industrial Engineering, Çukurova University, 01330 Balçova, Sancar / Adana, Turkey

ID 260  Optimization of Customers’ Trust in the Insurance Industry by Data Envelopment Analysis: An Actual Case Study
Mirzamohammadi and Mojtaba Hamid, School of Industrial Engineering, Iran University of Science and Technology, Tehran, Iran

ID 108  Insights from Control Science for the Management of Technology
Tarig Samad, Technological Leadership Institute, University of Minnesota, U.S.A.

2:30 – 4:00, WEDNESDAY  PANEL SESSION on Women in Industry and Academia  Room 2
Panel Chair: Ing. Denisa Hrušecká, Ph.D., Tomas Bata University in Zlín, Zlín, Czech Republic

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<td>Dr. Hannelie Nel</td>
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<td>National School of Applied Sciences of Kenitra (ENSA-Kenitra) University Ibn Tofail</td>
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2:30 – 4:00, WEDNESDAY  Waste Management  Room 3
Session Chair: Aditya Shah, Pandit Deendayal Petroleum University, India

ID 006  Resource Recovery from Paper Mill Sludge through Vermicomposting
Mercy Manyuchi, University of Johannesburg, Johannesburg, South Africa

ID 019  Potential to Produce Biomass Briquettes from Brewery Waste
Mercy Manyuchi, University of Johannesburg, Johannesburg, South Africa

ID 060  Development of E-Waste Inventory Management Strategy: Case Study
Ignatio Madanhire and Kumbi Mugwindiri, University of Zimbabwe, Department of Mechanical Engineering, Zimbabwe
Charles Mbohwa, University of Johannesburg, Johannesburg, South Africa

ID 511  Ranking of Technologies for Energy Recovery from Municipal Solid Waste in Bangladesh Using the Analytic Hierarchical Process (AHP): A Case Study
Syeda Marzia and Md Sadman Sakib, Department of Civil Engineering, Bangladesh University of Engineering & Technology Dhaka, Bangladesh

ID 514  Green Supply Chain Management-An Indian Study
Aditya Shah, Aditya Sanjay Shah and Kush Adhvaryu, Pandit Deendayal Petroleum University, India

ID 427  Optimizing a Solid Waste Management Model using Particle Swarm Optimization
Ferdous Sarwar, Farzana Islam, Md Sadman Sakib and Sampa Halder, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

2:30 – 4:00, WEDNESDAY  Systems Engineering  Room 4
Session Chair: Mary Rose Arnejo, Cebu Institute of Technology – University, Cebu City, Philippines

ID 177  Model-Based Engineering of a Process Wash Plant using SysML: Case study of beneficiation processes in a phosphate industry
Mariem Ait Bakader and Laurent Deshayes, Complex Systems Engineering, Mohammed VI Polytechnic University, BENGUERIR, MOROCCO
Mohammed El Asri, Applied Organic Chemistry Laboratory, Faculty of Sciences and Technics, Sidi Mohamed Ben Abdellah University, FES, Morocco

ID 192  Industrial Engineering and the Fourth Industrial Revolution: Education and Skills
Zain ElAbideen Abdul Majid Tahboub, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, UAE

ID 279  Mobile Robotic Platform for Simultaneous Localization and Mapping (SLAM) Experiments Based on Range Sensors
Jeanette del Pilar Ureña-Aguirre, Javier Chiza López and Mayra Maya Nicolalde, Carrera de Ingeniería Industrial, Facultad de Ingeniería en Ciencias Aplicadas, Universidad Técnica del Norte
Edisson Iván Aldás Serrano, Departamento de Mantenimiento Electromecánico del Poliducto Tres Bocas-Pascaules-Cuenca, Empresa Pública de Hidrocarburos del Ecuador

ID 385  Developing Rasterization Using Unstable Modalities
Hee-Joo Choi and Sangsoo Park, SEOUL, South Korea
### Supply Chain Management

**Room 5**

**Session Chair:** Ahmed M. Attia, OPIM Department, Effat University, Jeddah, KSA

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<td>Evaluation of Outfit Rental Fee Payment Processing System of LMFH Company</td>
<td>Mary Rose Arnejo, Kathleen M. Econas, Stephanie Clare S. Montecillo, Jopie Lhea Ross N. Repuela and Boniza C. Tumulak, Department of Industrial Engineering, Cebu Institute of Technology – University, Cebu City, Philippines</td>
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<td>438</td>
<td>Horizontal Collaboration to Reduce Traffic Congestion: Opportunities for Industries of Bangladesh by improving Smart Conveyance</td>
<td>Rumaisa Ahmed, Fatin Ishraq and Joytun Nisa Joti, Industrial &amp; Production Engineering Department, Military Institute of Science &amp; Technology, Dhaka, Bangladesh</td>
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<td>Multi-criteria Decision Approach to Measure Complexity Level in Supply Chain</td>
<td>Sujan Piya, Mohammad Khadem and Mahmoud Al-Kindi, College of Engineering, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman Ahm Shamsuzzoha, School of Technology and Innovation, University of Vaasa, Vaasa, Finland</td>
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<td>The Triple-Helix Sub-Revolution and the Hype of Industry 4.0</td>
<td>Rigard Johan Steenkamp, Department of Operations Management, University of South Africa, Pretoria, RSA</td>
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### Lean Six Sigma

**Room 6**

**Session Chair:** Laila El Abbadi, National School of Applied Sciences, Kenitra Ibn Tofail University, Kenitra, Morocco

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<td>A Dynamic Model for Sustainable Lean Six Sigma Implementation</td>
<td>Tshavhuoyo Sesane, Andre Vermeulen and Jan-Harm C. Pretorius, University of Johannesburg, South Africa</td>
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<td>Impact of Quality and Lean Manufacturing in Automotive Parts Suppliers’ Competitiveness</td>
<td>Luz María Valdez de la Rosa and Luis Alberto Villarreal Villarreal, Center for Business Development and Postgraduate, Universidad Autónoma de Nuevo León, Nuevo León, México</td>
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<td>M.A. Gómez Gavito, Department of Lean Advancement Initiative – México, Universidad Popular Autónoma del Estado de Puebla, México J.P. Nuño de la Parra, General Director of Internationalization, Universidad Popular Autónoma del Estado de Puebla, México</td>
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<td>Introducing a Measurement Framework to Assess Lean Readiness Level within Emergency Departments in Kuwait</td>
<td>Mohamad Alnajem, Gulf University for Science &amp; Technology, Kuwait</td>
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<td>575</td>
<td>How do Knowledge Management Practices Influence the Deployment of Lean Management: A Case Study</td>
<td>Pedro Martim Lota, Departamento de Engenharia Mecânica e Industrial, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Caparica, Portugal Maria Henriquea Almeida, UNIDEMI, Departamento de Engenharia Mecânica e Industrial, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Caparica, Portugal António Grito, UNIDEMI, Departamento de Engenharia Mecânica e Industrial, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Caparica, Portugal</td>
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<td>Critical Success Factors for Lean Implementation “Projection on SMEs”</td>
<td>Mariam Houti, Laila El Abbadi and Abdellah ABOUABDELLAH, Systems Engineering Laboratory, National School of Applied Sciences, Kenitra Ibn Tofail University, Kenitra, Morocco</td>
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### Reliability and Maintenance

**Room 1**

**Session Chair:** Gautam Majumdar, Jadavpur University, Kolkata, India

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<td>Remaining Life Prediction for Corroded Gas Pipeline Management in the Era of Industry 4.0</td>
<td>Seong-Jun Kim, Gangneung-Wonju National University, Wonju, Gangwon Province, Korea Republic Woosik Kim, Center for Facility Technology Research, Gas Research Institute, Korean Gas Corporation, Korean Republic</td>
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ID 180  Final version: A Framework to Prolong Interval of Turnaround Maintenance (TAM) of Processing Plants: Pressure Drums Case Study
Abdelnaser Elwerfalli, College of Mechanical Engineering Technology Benghazi – Libya

ID 189  Advantages and Requirements for a Successful Introduction of an Industrial Tele Maintenance System
Michael Fritscher, Christian Lilge, Markus Krauß and Klaus Schilling, Zentrum für Telematik, Magdalene-Schoch Str. 5, 97074 Würzburg, Germany

ID 191  Optimizing the Kiln Capacity by Developing Preventive Maintenance
Ghulam Yasin Shaikh, Mehran University of Engineering & Technology Jamshoro, Sindh, Pakistan

ID 199  Analysis of Factors Undermining the Reliability of Permanent Perway Infrastructure
M Mukwena, A Wessels and J H C Pretorius, Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg Gauteng, South Africa

ID 132  Enhancement of Overall Equipment Effectiveness Through Implementation of Total Productive Maintenance
Rajat S Sen and Gautam Majumdar, Department of Mechanical Engineering, Jadavpur University, Kolkata, India
M G R Educational and Research Institute, Chennai, India

4:30 – 6:00, WEDNESDAY  Panel Session on Supply Chain Sustainability  Room 2
Panel Chair: Professor Jose Arturo Garza-Reyes, University of Derby, UK

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

Panel Speakers

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

Dr. Jiří Tupa
Vice Dean for Faculty Development
Faculty of Electrical Engineering
University of West Bohemia
Pilsen, Czech Republic

Dr. Luis Rocha Lona
Lecturer in Operations Management, Business School
National Polytechnic Institute of Mexico
México City, Mexico
Tec de Monterrey, Campus Santa Fe

4:30 – 6:00, WEDNESDAY  Knowledge Management  Room 3
Session Chair: Milton Krivokuca, California State University Dominguez Hills, Carson, CA, USA

ID 125  Testing the Effect of Knowledge Management Capabilities on Service Quality
Ahmed M. Attia and Alaa M. Zibar, OPIM Department, Effat University, Jeddah, KSA

ID 229  Plagiarism in Colombian Universities – Regulatory Aspects
Omar Alonso Patiño C., Gerardo Avendaño Prieto and Laura Marcela Patiño Gutiérrez, Faculty of Administrative Sciences, Fundación Universitaria Cafam, Bogotá – Colombia

ID 235  Digitalization in Industry 4.0, Knowledge Management
Jiří Mouček, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Pilsen, Czech Republic

ID 083  Extending the Quality Culture in the Digital Age
Milton Krivokuca, Program Chair Emeritus, Master of Science in Quality Assurance, California State University Dominguez Hills, Carson, CA, USA and Milton Krivokuca and Associates Wilmington, North Carolina, United States
### Data Analytics

**Room 4**

**4:30 – 6:00, WEDNESDAY**

**Session Chair:** Daniela Garza Gutiérrez, Universidad de Monterrey, Nuevo León, México

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<td>Analysis of Accidental Deaths during Songkran Festival Using Data Mining</td>
<td>Pornpimol Chaiwuttisak, Statistics Department, King Mongkut’s Institute of Technology Ladkrabang, Bangkok, Thailand</td>
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<td>ID 332</td>
<td>Classifying Colon Cancer Tissues Using Probabilistic Principle Components Analysis with the Consistent Information Complexity (CICOMP) in Logistic Regression</td>
<td>Abdulaziz Saud Alkabaa, Department of Industrial Engineering, King Abdulaziz University, Jeddah, Saudi Arabia</td>
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<td>ID 404</td>
<td>To Understand the Applications of Cloud Computing Adoption in Various Sectors</td>
<td>Darshi Khirani, Arushii Doctor and Vaibhav S. Narwane, Dept. of Mechanical Engineering, K. J. Somaiya College of Engineering, Mumbai, India. Rakesh D. Raut and Balskrishna E. Narkhede, Industrial Engineering and Manufacturing Systems Group., National Institute of Industrial Engineering (NITIE), Mumbai, India</td>
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<td>ID 490</td>
<td>Towards a Patient Rule Induction-Based Classifier</td>
<td>Rym NASSIH, AMIPS Research team – EMI, University Mohamed V, Rabat, Morocco. Abdulaziz BERRADO, AMIPS Research team – EMI, University Mohamed V, Rabat, Morocco</td>
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<td>ID 378</td>
<td>Applicable Models of Customer Analytics for a Retail Company in Mexico</td>
<td>Daniela Garza Gutiérrez, Juan Ignacio González Espinosa and Luz María Valdez de la Rosa, Engineering Department, Universidad de Monterrey, Nuevo León, México</td>
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### Facilities Planning and Management

**Room 5**

**4:30 – 6:00, WEDNESDAY**

**Session Chair:** Priyanka C Bhatt, Bennett University, Times of India Group (India)

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<td>Impact of Occupational Health and Safety Strategies on Reducing Construction Site Accidents</td>
<td>Laila Khodeir and Youhansen Salahel Dine, Faculty of Engineering, Architecture depament, Ain Shams University, Cairo, Egypt.</td>
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<td>ID 209</td>
<td>Decrease in Loading Times for Trucks at a Steel Company</td>
<td>Arturo Ortega Vila, Alejandro Jesús Cantú González, Manuel Alejandro Solís Martínez and Jenny Díaz Ramírez, Department of Engineering, Universidad de Monterrey, Monterrey, N.L. 66238, Mexico</td>
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<td>ID 212</td>
<td>Improvement Plant Layout of Production Line in Textile Company: A Case Study</td>
<td>Yakcleem Montero Santos, Oscar V. Calderón Torres, Leandro L. Lorente Leyva, Israel D. Herrera Granda, Carlos A. Machado Orges and Ramiro V. Saraguro Piarpuezap, Facultad de Ingeniería en Ciencias Aplicadas, Universidad Técnica del Norte, Ibarra, Ecuador</td>
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<td>ID 429</td>
<td>Solving the Dynamic Facility Layout Problem using Dynamic Programing</td>
<td>Saeideh Salimpour and Ahmed Azaz, Production and Operations Management Research Lab, University of Windsor, Windsor, ON, Canada</td>
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<td>ID 433</td>
<td>A Hierarchical Facility Location-Allocation Model for the Maternal Healthcare in India</td>
<td>Ankit Chouksey, A. K. Agrawal and Ajinkya N. Tanksale, Mechanical Engineering Department, IIT(BHU), Varanasi, India</td>
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<td>ID 558</td>
<td>Strategic Sourcing in Manufacturing Sector: A Case of an Indian Company</td>
<td>Sharif and Sebi Khan, Indian Institute of Technology, Kanpur-208016. (India) Priyanka C Bhatt, Bennett University, Times of India Group (India) Manoj Kumar and Simran Singh, Indian Institute of Technology, Kanpur - 208016 (India)</td>
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### Logistics, Traffic and Management

**Room 6**

**4:30 – 6:00, WEDNESDAY**

**Session Chair:** Andre Vermeulen, University of Johannesburg, South Africa

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<td>ID 094</td>
<td>The Use of Internet of Things (IoT) Applications in the Logistics Outsourcing: Smart RFID Tag as an Example</td>
<td>Jabir Arif, Ecole Nationale des Sciences Appliquées (ENSA) Université Abdelmalek Essaâdi Tetouan, Morocco. Imane Ibn El Farouk, Université Moulay Ismail Meknes and El Jadida, Morocco. Youssouf BOUZOURI, Université Hassan 1er Settat, Morocco. Fouad Jawab, Université Sidi Mohamed Ben Abdellah Fes, Morocco</td>
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<td>ID 095</td>
<td>Risk Assessment Model Proposal in Logistics Outsourcing process: Masse Market Retailing as a Case Study</td>
<td>Jabir Arif, Ecole Nationale des Sciences Appliquées (ENSA) Université Abdelmalek Essaâdi Tetouan, Morocco. Fouad Jawab, Université Sidi Mohamed Ben Abdellah Fes, Morocco</td>
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<td>ID 173</td>
<td>Substantial Utilization of MST to Reduce Taxi-Delay in the Metropolitan City of Johannesburg</td>
<td>Mike Nkongolo, School of Computer Science and Applied Mathematics, University of the Witwatersrand, Johannesburg, South Africa. Laby I Lumbe, Department of Transport and Supply Chain, University of Johannesburg, Johannesburg, South Africa</td>
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6:00 – 8:00 pm (Wednesday) - Poster Session

POSTERS

ID 002  Evaluation and Method of Reducing the Capacity of the Contaminant When Pumping Multi-Products
Amar Benmounah and HACHEMI Tayeb, University M'hamed Bougara, Independence Street. Boumerdes, Algeria

ID 054  Supplier Evaluation and Segmentation in Cheese Company Using Best-Worst Method and TOPSIS
Muhammad Dachyar and Aulia Karima Maharani, Universitas Indonesia, Indonesia.

ID 055  Design on Improvement of Distribution Process in Logistic Service Provider Companies Using Business Process Reengineering Approach
Muhammad Dachyar and Gabriella Septiani Miranda, Universitas Indonesia, Indonesia

ID 056  Factors Influencing Product Quality in Milk Processing Industry
Muhammad Dachyar and Galuh Paramitha Rachmadhani, Universitas Indonesia, Indonesia

ID 057  Designing Model of Spare Parts Supplier Selection in Power Plants Using AHP-PROMETHEE Method
Muhammad Dachyar and Gilbertha Ayu Sijabat, Universitas Indonesia, Indonesia

ID 058  Design of Unit Selection in Indonesian Hospital to Implement Internet of Things (IoT) Using DEMATEL-Based ANP and VIKORRUG
Muhammad Dachyar and Ulfia Azizia, Universitas Indonesia, Indonesia

ID 073  The Impact of Risk Analysis in Project Cost Calculation
Konstantin Novikov and Jana Kleinova, University of West Bohemia, Pilsen, Czech Republic

ID 074  Exploring the Potential of New Technologies in Lean Shop-floors: Do Industry 4.0 Resources Really Matter?
Antonio Sartal, Universidade Nova de Lisboa, Portugal
Josep Llach, Mechanical and Industrial Engineering Department, Girona, Spain

ID 075  Organizational Tools and Cultural Change in the Success of Lean Transformations: Taking Stock and Looking ahead to Unravel the Right Sequence and Rhythm
Antonio Sartal, Universidade Nova de Lisboa, Portugal
Xosé H. Vázquez, School of Economics and Business, Campus das Lagoas/Marcosende

ID 084  Modelling Interdependencies of Electrical Power Infrastructure by Using ISM-MICMAC Analysis
Hassan Al-Zarooni and Hamdi Bashir, University of Sharjah, United Arab Emirates

ID 091  Self-Organizing Migrating Algorithm Applied to Discrete Event Simulation Optimization
Pavel Raska and Zdenek Ulrych, University of West Bohemia, Pilsen, Czech Republic

ID 093  Meta-analyses in Operations and Management Research: What can we learn from Medicine?
Antonio Sartal, Universidade Nova de Lisboa, Portugal
Miguel Gonzalez-Loureiro and Xosé H. Vázquez, School of Economics and Business, Campus das Lagoas/Marcosende

ID 095  Comparison of the Local Muscular Stress of Men and Women in the Industrial Sector
Martin Kába and Ilona Kačerová, University of West Bohemia Univerzitní, Pilsen, Czech Republic

ID 120  A Review Paper on Algorithms Used For Simple Assembly Line Balancing Problems in the Automotive Industry
Salah Eddine Ayoub El Ahmadi, Laila El Abbadi and Moulay Taib Belghiti, National School of Applied Sciences, Ibn Tofail University, Kenitra, Morocco

ID 129  Preparation of Collaborative Robot Implementation in the Czech Republic
Tomáš Broum and Michal Simon, Department of Industrial Engineering and Management Faculty of Mechanical Engineering, University of West Bohemia Plzen, Czech Republic

ID 135  Historical Overview of Maintenance Management Strategies: Development from Breakdown Maintenance to Predictive Maintenance in Accordance with Four Industrial Revolutions
Peter Poór, David Ženíšek and Josef Basil, Department of Industrial Engineering and Management, University of West Bohemia, Czech Republic

ID 137  Business Process Modelling and Change of Organizational Structure
Viktória Hořánek, Jana Benešová and Michal Šimon, Dept. of Industrial Engineering and Management, University of West Bohemia, Pilsen, Czech Republic
ID 155  Balancing the Workmanship of a Production Line in the Manufacturing Industry of a Personal Care Product
Jackson Generoso, Milton Alexandre Ziehlisidorff and Paulo Henrique Gamba, Department of Production and Systems Engineering, Federal University of Santa Catarina, Brazil

ID 176  Horizontal Collaboration for Enhancement of the Infrastructural Development across the Textile Sectors in Bangladesh
Md Shohorav, Hossain Zaber and Zubair Fabrics Limited, Gazipur, Dhaka, Bangladesh

ID 205  Proactive Orientation Towards the Market and the Degree of Novelty of Innovation in the Exporting Intensity of the Business Sector in Colombia
Martha Lucía Pachón Palacios and Omar Alonso Patiño C., Management, Finance and Economics Faculty, EAN University, Bogota, Colombia

ID 206  The Cost-Effectiveness Of Solar Energy In South Africa
Polcear Feussi, Innocents E Edoun and Charles Mbohwa, The University of Johannesburg, South Africa

ID 214  The Effect of Monitor Type on the Front Head Posture (FHP)
Kyeong-Hee Choi, Jae-Kyeong Kim, Hyun-Ho Shim, Min-Uk Cho, Chae-Won Park and Yong-Ku Kong, Department of Industrial Engineering, Sungkyunkwan University, Suwon, Gyeonggi-do 16419, Korea

ID 226  Biogas Power Generation Plant with Power of Hydrogen (PH) and Gas Flow Regulation
Abdulgader Gadi, Mohammad Saharti, Khaled Alghamdi, Muhammad Alharbi, Imran Fazai and Mohammed Alsumiri, Electrical and Electronics Engineering Department, Yanbu Industrial College, Yanbu, Saudi Arabia

ID 227  Nonintrusive Appliance Load Monitoring (NALP) Power Data Aggregation System
Arkan Bawazeer, Murtadha Mohammed, Ibrahim Binbakr, Aamir Khan and Mohammad Alsumiri, Electrical and Electronics Engineering Department, Yanbu Industrial College, Yanbu, Saudi Arabia

ID 230  Adoption of Product-Service System and the Potential as a Sustainable Solution: A Literature View in the Fashion Industry
Pedro Seolin dos Santos, Lucila M. S. Campos and Paulo Augusto Cauchick Miguel, Department of Production Engineering and Systems, Federal University of Santa Catarina – UFSC, Florianopolis – SC, Brazil

ID 231  A New Climate Indicator to Be Used In Prediction of Cooling Energy in Hot and Humid Regions
Mauricio Nath Lopes and Roberto Lamberts, Department of Refrigeration and Air Conditioning, Federal Institute of Santa Catarina (IFSC), São José, SC, Brazil

ID 233  Design & Fabrication of Smart Louvered Roof
Ali Airutui, Khalid Ababtain, Ashraf Alghannim and Fayyaz Nadeem, Department of Mechanical Engineering Technology, Yanbu Industrial College, Yanbu Al-Sinaiyah, Saudi Arabia

ID 281  Ethics in the Development and Engineering of Software
Javier Chiza López, Jeannette del Pilar Ureña-Aguirre and Mayra Maya Nicolalde, Carrera de Ingeniería Industrial, Facultad de Ingeniería en Ciencias Aplicadas, Universidad Técnica del Norte

ID 304  Process View on E-Health with Risk Analysis
Michał Svehla and Jifi Tupa, Department of Technologies and Measurement, Regional Innovation Centre for Electrical Engineering (RICE), Faculty of Electrical Engineering, University of West Bohemia

ID 305  Optimization of Operating Parameters of an Ingot Mold during Continuous Casting - Case of a Content High Carbon Slab
Mounira Bourebia, Soumaya Meddaah, Amel Gharbi and Khadija Bouhamla, Industrial Technologies Research Center. CRTI. chéraga, Algeria

ID 308  Harmonics in Power Systems and Mitigating Techniques
AbdallrrMAN Safar, Yasseen Ali, Turki Alharbi, Maher Aljohani, Abdulhameed Salim, Mustajab Khan and Mohammed Alsumiri, Electrical and Electronics Engineering Department, Yanbu Industrial College, Yanbu, Saudi Arabia

ID 319  Prediction of the Friction Coefficient of 13Cr5Ni2Mo Steel Using Experiments Plans-Study of Wear Behavior
Soumaya Meddaah, Mounira Bourebia, Amel Oulabbas, Chamseddine Ramoul, Samira Tlili, Ahlem Taleb and Sihem Achouri, Research Center in Industrial Technologies CRTI, P.O.Box 64, Cheraga 16014 Algiers, Algeria

ID 359  Determination of Changes Between Lean Management and Lean 4.0
Andrea Benesova and Jiri Tupa, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Univerzítní 1034/8, 301 00 Pilsen, Czech Republic

ID 380  TKFR2: A Multi-Function Robot
Turki Ahmed Yanbu, Industrial College, Yanbu Industrial City, AlMadinah, Saudi Arabia

ID 381  The Effect of The AIDC On JIDOKA's Performance via VSM to Reduce the total Manufacturing Lead Time
Ahmed M. Abed, Industrial Engineering Department, Prof. Assist. AIET, Alexandria, Southfield, MI 48075, USA

ID 393  New Approaches to Fast the Iterative Closest Point (ICP) Algorithm: Application to the Inspection of Freeform Surfaces
Noureddine Azzam and Fouad Guerdoùh, Department of Engineering Transport, Faculty of Sciences and Technology, University of the Mentouri Brothers of Constantine 1, Road of Ain-el-Bey, 25000 Constantine, Algeria

ID 400  Real Time Car Engine Condition Monitoring by Using Instantaneous Angular Speed Analysis (IAS)
Abdulrffman Sait and Jamal Aliffi, Mechanical Engineering Technology Department, Yanbu Industrial College, Yanbu, Kingdom of Saudi Arabia

ID 406  Prediction of the Fracture of a Non-Alloy Steel Calm to Aluminum by Simulation in Direct Tensile Test
Achouri, R. Benchouieb, O. Ghallouj, M. Bourebia, S. Medahhe and A. Oualabbas, Research Center in Industrial Technologies CRTI, Algeria

ID 407  Needle Stick Injury: Occupational Hazards from Medical Waste among Healthcare Workers
Jaita Mondal, Associate Professor, M.Sc (Community Health Nursing); MBA (Hospital Management), VISWASS School & College of Nursing, Chhattabar, Odisha

ID 419  Development of a Campus Carbon Footprint Intervention Framework
Joo Peng Ng and Ezutah Udoncy Olugu, Department of Mechanical Engineering, Faculty of Engineering, Technology and Built Environment, UCSI University, 56000 Cheras, Kuala Lumpur, Malaysia

ID 421  Compressed Air Driven Car
Mohammed Saleh Alrashedi, Mohammad Tarahib Alharbi and Fahad Alhujaili, Department of Mechanical Engineering Technology, Yanbu Industrial College, Yanbu Al-Sinaiyah, Saudi Arabia

ID 431  Study of Inhibitory Efficacy of Natural Extract of Opuntia Ficus Indica as Green Inhibitor for Corrosion of Mild Steel in Drilling Water
Oualabbas Amel, Meddah Soumaya, Achouri Sihem, Tili Samira, Ramoul Chems Eddine and Remichi Nasser, Research Center In industrial Technologies CRTI P.O. Box 64, Cheraga 16014 Algiers, Algeria

ID 473  Automatic Sawing Seeds Machine
Khalid Abdulliltife Ababtain and Muhammed Ajmal, Mechanical Engineering Department, Yanbu, Saudi Arabia

ID 499  Enhance Thermal Properies
Khalid Alhazmi, Yanbu industrial college, Yanbu industrial city, Medinah, Saudi Arabia

ID 527  Process View on E-Health with Risk Analysis
Michal Švehla, University of West Bohemia, Pilsen, Czech Republic

July 25, 2019 (Thursday) - Session: 8:00 – 9:30 pm

8:00 – 9:30, THURSDAY  Global Engineering Education IX  Room 1
Session Chair: Dr. Eldon Caldwell, University of Costa Rica

8:00 – 8:30 (Thursday) – Room 1

Dr. Eldon Caldwell
Director, Industrial Engineering Department, Engineering School
University of Costa Rica, San Jose, Costa Rica

The Project based Learning combined with Problem Solving based Learning in Industrial Engineering Programs

8:30 – 9:00 (Thursday) – Room 1

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

ID 343  Development of Industry 4.0 Virtual Lab for Manufacturing Engineering Education
Kapil Gupta, M Mukhawana, Madindwa Mashinini, Arno Louw, Centre for Academic Technologies, University of Johannesburg, Johannesburg, South Africa

9:00 – 9:30 (Thursday) – Room 1

Ing. Andrea Benesova
Commercial Electrical Engineering
University of West Bohemia
Pilsen, Czech Republic

ID 358  Requirements for Education 4.0 and Study Programs within Industry 4.0
Andrea Benesova, Martin Hirman, Frantisek Steiner, Jiri Tupa, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Univerzitni 2732/8, 301 00 Pilsen, Czech Republic

8:00 – 9:30, THURSDAY  Industry Solutions IX – Industry 4.0  Room 2
Session Chair: Dr. Mohammed Alkahtani, King Saud University, RIYADH, Saudi Arabia

8:00 – 8:30 (Thursday) – Room 1

Dr. William S. Edwards, Ph.D., PE, PMP
Faculty, ISE Department
Oakland University, Rochester, Michigan, USA

ID 386  The Move It Forward Theory (MIFT) offers a better method to manage major machine failure in a serial flow line
William Edward, Sankar Sengupta and Michael Latcha, Oakland University, Michigan, USA
8:30 – 9:00 (Thursday) – Room 1

Mohammed Alkahtani
King Saud University
RIYADH Saudi Arabia

ID 515 Supply Chain 4.0: A Shift in Paradigm
Mohammed Alkahtani, Industrial Engineering Department, College of Engineering, King Saud University, Riyadh-11421, Saudi Arabia, Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute, King Saud University, Riyadh-11421, Saudi Arabia
Mustufa Haider Abidi, Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute, King Saud University, Riyadh, KSA

9:00 – 9:30 (Thursday) – Room 1

Ahad Ali, Ph.D.
Associate Professor
Director, Bachelor of Science in Industrial Engineering (BSIE)
Director, Master of Science in Industrial Engineering (MSIE)
Coordinator, Siemens Electri-Matic Industrial Engineering Lab
A. Leon Linton Dept. of Mechanical Engineering
Lawrence Technological University
Southfield, Michigan, MI 48075, USA

Status of Industry 4.0

8:00 – 9:30, THURSDAY Sustainability in Manufacturing, Services, Logistics & Transportation Room 3
Session Chair: Vikas Kumar, Bristol Business School, University of the West of England, Bristol, UK

ID 152 The Driver of Hub Port Development in Africa
Samia BOUAZZA, Zoubida Benamoun, Hanaa Hachimi, BOSS team, GS laboratory, ENSA University, Morocco

ID 232 Measuring Sustainability Performance of SMEs in A Developing Country – A study of Southern Vietnam
Huy Q. Phan, Vikas Kumar and Mohammed Saad, Bristol Business School, University of the West of England, Bristol, UK
Jose A. Garza-Reyes and Simon Peter Nadeem, Centre for Supply Chain Improvement, University of Derby, Derby, UK

ID 283 Professional Drivers’ Motivations for Eco-driving Behavior
Jenny Díaz Ramírez, Engineering and Technologies Department, University of Monterrey, Nuevo León, Mexico
Lorena de la Paz Carrete, EGAD Business School, Tecnologico de Monterrey, Toluca, Mex, 50110, Mexico
José Ignacio Huertas, Energy and Climate Change Research Group, School of Engineering and Science, Tecnologico de Monterrey, Mexico

ID 461 Minding the Gap between Smart Factory Systems and Sustainability Performance
Bruno Gallotta, Polina Baranova, Business School, University of Derby, Kedleston Rd, Derby DE22 1GB

ID 264 Investigating the Motivators, Barriers and Enablers Associated with the Implementation of Sustainable Supply Chain in Saudi Manufacturing Industry
Abdulaziz Aljoghaiman, Mohammed Saad and Vikas Kumar, Bristol Business School, Business and Management Department, University of the West of England, Bristol, BS16 1QY, UK

ID 269 Analysis of Organizational Management and Supply Chains in Ecotourism Companies of Lejanías, Uribe and Mesetas- Meta-Colombia
Gerardo Avendaño-Prieto, Faculty of Business Administration, EAN University, Bogota Colombia
William E. Mosquera-Laverde, Faculty of administrative and economic sciences, Universidad Cooperativa de Colombia, Bogotá D.C., Colombia
Oscar A. Vásquez-Bernal, School of Basic Sciences; Technology and Engineering, Universidad Nacional Abierta y a Distancia – UNAD

8:00 – 9:30, THURSDAY Engineering Economy Room 4
Session Chair: Suraj Kumar Mukti, NIT, Raipur, C.G., India

ID 276 Critical Competencies in Project- Based Organizations: An Interpretive Structural Modelling approach
Sara Sajedi and Mohsen Akbarpour Shirazi, Department of Industrial Engineering, Amirkabir University of Technology, Tehran, Iran

ID 464 Stock Return Prediction Based on Some Forms of Capital Asset Pricing Model (CAPM)
Sukono, Riaman, Alit Kartiwa and Betty Subartini, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Jumadil Saputra, School of Social and Economics Development, Universiti Malaysia Terengganu, Malaysia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 465 Stock Assessment Using a Dividend Discount Model with Growth Rate Following a Time Series Pattern
Sukono, Dw Susanti, Isah Asiah and Agus Supriatna, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Jumadil Saputra, School of Social and Economics Development, Universiti Malaysia Terengganu, Malaysia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 202 The Storage and Management of Natural Resources: A Case Study on Water and Energy Usage and Management in Hotels in Gauteng
### Sustainable Manufacturing

**8:00 – 9:30, THURSDAY**

Room 5

**Session Chair:** Rajeev Agrawal, Malaviya National Institute of Technology, Jaipur, Rajasthan, India

**ID 020**  
Eric Amankwa, University of Johannesburg, Oakland Park, Gauteng, South Africa

**ID 124**  
Production of Tailored Reinforcement of Rattan Fiber Composite  
Flora Elvisstra Firdaus, Dept. of Chemical Engineering, Jayabaya University, Indonesia  
M. Dachyar, Dept. of Industrial Engineering, Universitas Indonesia, Indonesia

**ID 203**  
Lean and Green Manufacturing Practices: A Multiple Case Study about Synergy  
Paulo R. Avancini, Jairo J. Assumpção, André L. Helleno and Lucila M. S. Campos, Federal University of Santa Catarina (UFSC), Florianopolis, SC, Brazil

**ID 243**  
Antecedents and Consequences in Green Manufacturing: A Review Literature  
Ira Setyaningsih, Universitas Gadjah Mada, UIN Sunan Kalijaga Yogyakarta, Yogyakarta, DIY, Indonesia

**ID 306**  
Promoting Supplier’s Environmental Innovation via Emission Taxation  
Bosung Kim, Department of Industrial Engineering, Pusan National University, Pusan, South Korea  
Sang Won Kim, Department of Decision Sciences and Managerial Economics, CUHK Business School, The Chinese University of Hong Kong, China  
Kun Soo Park, Department of Industrial Engineering, Seoul National University, Seoul, South Korea

### Project Management

**8:00 – 9:30, THURSDAY**

Room 6

**Session Chair:** Timothy Laseinde, Department of Mechanical & Industrial Engineering, University of Johannesburg, RSA

**ID 258**  
Probabilistic Control of Projects Based on Earned Value Management  
Lady Vanessa Rangel, Cristina Isabel Aguilar and Alvaro Cuadros, Industrial Engineering Department, Universidad del Valle, Cali, Colombia

**ID 346**  
Significance of Factors Predisposing Public Tertiary Educational Building Projects to Risks in Ondo State, Nigeria  
Olufisayo Adewumi Adedokun, Department of Quantity Surveying, School of Environmental Technology, Federal University of Technology, Akure, Nigeria

**ID 365**  
Appraisal of Accident Mitigation on Tertiary Educational Construction Projects in Ondo State  
Ijieh Oriabure Treasure, Department of Quantity Surveying, School of Environmental Technology, Federal University of Technology, Akure, Nigeria  
Adedokun Deborah Oluwafunke, Department of Building and Quantity Surveying, College of Environmental Sciences, Joseph Ayo Babalola University, Ikeji-Arakeji, Osun State, Nigeria

**ID 402**  
Mistakes in Managing Local Community: Exploring the Case of Repsol in Canary Islands  
Roya Derakhshan and Victor Gomez Frias, School of Industrial Engineering, Universidad Politécnica de Madrid, Madrid, Spain

**ID 533**  
Performance and Evaluation of Perforated Bamboo as Reinforcement for Concrete  
Timothy Laseinde, Department of Mechanical & Industrial Engineering, University of Johannesburg, RSA  
Ifetayo Oluwafemi, Postgraduate School of Engineering Management, University of Johannesburg, RSA

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### 9:30 – 11:00 am – Thursday Morning Keynote I & II

9:30 – 10:00 am - **Thursday Morning Keynote I**

**Dr. Sascha Gierlings**  
Head of Prototype Manufacturing, Business Development Turbomachinery  
Fraunhofer-Institute for Production Technology (IPT)  
Steinbachstraße, Aachen, Germany

10:00 – 10:30 am - **Thursday Morning Keynote II**

**Mr. Tomas Vondrak**  
Plant Manager - Continental  
Czech Republic
10:30 – 11:00 am - **Thursday Morning Keynote III**

**Ing. Luděk Janík, Ph.D.**
Director – Eaton European Innovation Center, Eaton Corporation
Prague, Czech Republic

**Session – Thursday (July 25): 11:30 am – 1:00 pm**

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| 11:30 – 12:00 (Thursday) – Room 1 | **Dr. Felicita Chromjakova**  
Professor  
Department of Industrial Engineering and Information Systems  
Tomas Bata University  
Zlín, Czech Republic |
| 12:00 – 12:30 (Thursday) – Room 1 | **Bhavani Rao R.**  
UNESCO Chair in Gender Equality & Women’s Empowerment  
Amrita Vishwa Vidyapeetham, India  
Director of AMMACHI Labs, Amrita Multi Modal Applications Using Computer & Human Interaction Labs  
Amrita Vishwa Vidyapeetham |
| 12:30 – 1:00 (Thursday) – Room 1 | **Dr. Christoph Wunck**  
Professor of Business Information Systems  
Department of Electrical Engineering & Computer Science  
Emden/Leer University of Applied Sciences, Germany |

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| 11:30 – 12:00 (Thursday) – Room 1 | **ID 387  The Effects of the Fourth Industrial Revolution on the Career Progression of Engineers in the South African Packaging Industry**  
Gcina Mduduzi Nzima, Hannelie Nel, Bheki Makhanya  
Post-Graduate School of Engineering Management  
University of Johannesburg, South Africa |
| 12:00 – 12:30 (Thursday) – Room 1 | **ID 401  Production Employees Knowledge in Digitized Production Environment**  
Felicita Chromjaková, Denisa Hrušekčá  
Tomas Bata University in Zlín, Faculty of Management and Economics  
Department of Industrial Engineering and Information Systems, Zlín, 76001, CZ |
| 12:30 – 1:00 (Thursday) – Room 1 | **ID 428  Business Process Modeling for Tracing Halal Food using BPMN**  
Yulita Veranda Usman  
Agroindustrial Engineering Department  
Bogor Agricultural University, Bogor, Industrial Engineering Department, Pancasila University, Jakarta, Indonesia  
Anas Miftah Fauzi, Tun Tedja Irawadi  
Chemistry Department  
Bogor Agricultural University  
Bogor, Indonesia |

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Third European Conference

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ID 257  Knowledge Management to Minimize the Marketing Challenges using Strategic Management as a Tool
Animesh Agrawal and Suraj Kumar Mukti, Department of Mechanical Engineering, NIT, Raipur, C.G., India

ID 300  Fruiting Patterns of Cacao as Affected by Shading Regimes
Medinat Idowu Akeredolu, Department of Agricultural Technology, Federal Polytechnic, Ado – Ekiti, Ado, Ekiti, Nigeria
Timothy Laseinde and Ifetayo Oluwafemi, Postgraduate School of Engineering Management, University of Johannesburg, RSA, Johannesburg, 2006, South Africa

ID 389  Dynamic perspectives in Colombian Swine Supply Chain
Johanna Trujillo Díaz, Escuela Colombiana de Ingeniería, Colombia
Milton M. Herrera, Universidad Militar Nueva Granada, Colombia
Hugo Rene Samientos, Escuela Colombiana de Ingeniería Julio Garavito, Colombia

ID 394  Effects of Collaborative Learning Blended Knowledge Management E-learning Approach on Students’ Motivation in Higher Education
Krittawaya Thongkoo and Kannika Daungcharone, College of Arts, Media and Technology, Chiang Mai University, Chiang Mai, 50200, Thailand

ID 318  Guidelines to Create a Student CAD Portfolio
Abe Zeid, MIE Department, Northeastern University, Boston, USA

ID 466  Problems of Demand and Effects in Portfolio Based Selection of Utility Functions
Riaman, Sukono, Eman Lesmana and Agus Supriatna, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 467  Unit Link Single Life Premium Calculation for Unit Link Lifetime Insurance Using the Ratchet Compound Method
Agus Supriatna, Nurul Gusriani, Riaman, Sukono and Darry FaiithaYudha, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, JI. Raya Bandung-Sumedang KM 21, Jatinangor, Sumedang 45363, West Java, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 255  Life Cycle Assessment of Corrugated Box
Vishal Verma, Jinesh Kumar Jain and Rajeev Agrawal, Department of Mechanical Engineering, Malaviya National Institute Technology, Jaipur (India), Jawahar Lal Nehru Marg, Jhalana Gram, Malaviya Nagar, Jaipur, India

ID 462  Stylistic Design Engineering (SDE) applied to a new E-Segment sport sedan
Leonardo Frizziero, Giampiero Donnici, Nicola Maria Aprile Ximenes, Alessandro Secli and Matteo Ticca, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, Bologna, Italy

ID 463  A New SUV conceived by Stylistic Design Engineering (SDE)
Giampiero Donnici, Leonardo Frizziero, Giulio Galiè and Federico Lelli, Alma Mater Studiorum University of Bologna, Department of Industrial Engineering, Bologna, Italy

ID 528  Employee Productivity Improvement & Skill Enhancement in Pharmaceutical Industry
Manan Hingorani, Industrial Engineering, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India
Nitesh Jaiswal, Corporate Human Resources, XYZ Pharmaceutical Industry Ahmedabad, Gujarat, India

ID 574  Analysis of Design Product Entrepreneurship Syrup Based Purple Sweet Potato (Ipomoea batatas)
Victoria Bella Agatha, Student of the Agroindustrial Technology Department, Faculty of Engineering, Universitas Wijaya Kusuma Surabaya, Jl. Dukuh Kupang XXV/54, Surabaya, Indonesia
Endang Noerhartati, Department of Agroindustrial Technology, Universitas Wijaya Kusuma Surabaya, Indonesia, Jl. Dukuh Kupang XXV/54 Surabaya, Indonesia and Postgraduate Student, Department of Education Management, Unesa, Surabaya, Indonesia, Jl. Kampus Ketintang, Surabaya, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan Universiti Tun Hussein Onn Malaysia (UTHM) Johor, Malaysia

ID 530  A Real Study-Based Modeling of Stochastic Behavior of Traffic Crash Counts Using Penalized Poisson-GzLM
Shaligram Pokharel, Qatar University, Doha, Qatar
ID 005  Reducing Finished Cardboard Carton Inventory: A Case Study
Bernardo Villarreal, Universidad De Monterrey, San Pedro Garza Garcia, Mexico

ID 130  ABC Analysis and Diminution of Inventory Level Through Forecasting Technique in a Medium Scale Manufacturing Industry
Gautam Majumdar, Department of Mechanical Engineering, Jadavpur University, India
S. Nallusamy, Department of Mechanical Engineering, Dr. M G R Educational and Research Institute, Chennai, India

ID 139  Development of Vendor Management Inventory (VMI) Model for Single Vendor Single Retailor Using Imperialist Competitive Algorithm
Ferdous Sarwar, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh
Mahmudul Hasan Porag, Mechanical and Industrial Engineering Department, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

ID 242  Optimal Policy for a Vendor-Buyer Inventory System with Price-Dependent Demand, Production Cost Discount and Reliability Consideration: A Geometric Programming Approach
Bibhas Giri, Jadavpur University, Kolkata, India

ID 500  A Continous Review Inventory Model with Backorders and Equivalencies
Gözde Yazgı Tütüncü and Elif Duymaz, Faculty of Arts and Sciences/Mathematics, Izmir University of Economics, Balçova, İzmir, Turkey

ID 345  The Inventory Control Analysis of Head Truck Spare Parts with Continuous Review Policy in Container Terminal Company
Yugowati Praharsi, Eko Julianto and Hui-Ming Wee, Department of Industrial and System Engineering, Chung Yuan Christian University, Chung Pei Road No. 200, Chungli City 32023, Taiwan

1:00 – 2:30 pm – Thursday Networking Lunch Buffet
1:40 – 2:00 pm Lunch Keynote:

Dr. Jose Luis Guerrero-Cusumano
Associate Professor of Operations and Information Management
McDonough School of Business
Georgetown University
Washington D.C., USA

Session – Thursday (July 25) – 2:30 – 4:00 pm

2:30 – 4:00, THURSDAY  Global Engineering Education XI  Room 1
Session Chair: Dr. Sharif, Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, India

2:30 pm to 3:00 pm, Thursday – Room 1

Dr. Mohammad Khadem
Assistant Professor
Department of Mechanical and Industrial Engineering
Sultan Qaboos University
Muscat, Oman

3:00 – 3:30 (Thursday) – Room 1

ID 064  Determining the Benefits of the Engineering Mentoring Programmes for Graduates
Ozofu Akerele, André Vermeulen and Annilizé Marnewick, University of Johannesburg, Gauteng, South Africa

3:30 – 4:00 (Thursday) – Room 1

R.R.K. Sharma, Ateequr Rahman, Sharif and Vinayak A Drave, Department of Industrial and Management Engineering, Indian Institute of Technology, Kanpur, 208016, India

2:30 – 4:00, THURSDAY  Workshop on Entrepreneurship and Innovation  Room 2

Professor Donald M. Reimer
Director of Membership and Chapter Development – IEOM Society
### Logistics, Transport and Traffic Management

**Room 3**

**2:30 – 4:00, THURSDAY**

**Session Chair:** Suk-Chul Rim, Department of Industrial Engineering Ajou University Suwon, Republic of Korea

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<td>Daniel Mendoza-Casseres, Industrial Engineering Department, Universidad del Atlántico, Barranquilla, Colombia</td>
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### Operations Management

**Room 4**

**2:30 – 4:00, THURSDAY**

**Session Chair:** Ghulam Yasin Shaikh, Professor, Dr, Mehran, University of Engineering & Technology Jamshoro Sindh, Pakistan

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<td>Dhia Jabri, Lena Ahmadli, Ali Elkamel, Chemical Engineering Department, University of Waterloo, Waterloo, Ontario, Canada. Chandra Mouli R. Madhuranthakam, Chemical Engineering Department, Abu Dhabi University, Abu Dhabi, United Arab Emirates</td>
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### Manufacturing

**Room 5**

**2:30 – 4:00, THURSDAY**

**Session Chair:** Flora Elvistia Firdaus, Jayabaya University, Indonesia

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<td>Eman Saied, Noha M. Galal and Aziz E. El-Sayed, Arab Academy for Science, Technology, and Maritime Transport, College of Engineering and Technology, Industrial and Management, Engineering Department, 1029 Alexandria, Egypt</td>
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Endang Noerhartati, Department of Agroindustrial Technology, Universitas Wijaya Kusuma Surabaya, Indonesia, Jl. Dukuh Kupang XXV/54 Surabaya, Indonesia and Postgraduate Student, Department of Education Management, Unesa, Surabaya, Indonesia, Jl. Kampus Ketintang, Surabaya, Indonesia
Endang Retno Wedhowati and Diana Puspitasari, Department of Agroindustrial Technology, Universitas Wijaya Kusuma Surabaya, Indonesia Jl. Dukuh Kupang XXV/54 Surabaya, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan Universiti Tun Hussein Onn Malaysia (UTHM) Johor, Malaysia

ID 513  Scheduling of M jobs on N Machines Using a New Proposed Sequencing Method
Anand Bheshaditya and Parth Shah, Student of Industrial Engineering, Pandit Deendayal Petroleum University, Gandhinagar, India

ID 526  Detection and Diagnosis of Malignancy by Laser Induced Fluorescence Spectra (LIF)
Priya Sachin Deole, Department of Physics, G.S.Tompe Art’s, Comm. & Science College, Chandur Bazar, Dist. Amravati (M.S) India
Nachiket Sachin Deole, Department of Engineering Sciences and Humanities, Savitribai Phule University, Pune, India
Masani Vyankatesh Ghamande, Department of Engineering Sciences and Humanities, Savitribai Phule University, Pune, India

2:30 – 4:00, THURSDAY  Business Management  Room 6
Session Chair: Inese Ratanova, University of Latvia, Latvia

ID 017  Practical Techniques for Selecting the Best Strategy
Hakan Butuner, IMECO Industrial Management & Engineering Co., Istanbul turkey, Turkey

ID 121  Supply Chain Delay in Payment: Review, Classification and Future Research Directions
Mohamed Hicham Salah Eddine and Abdelaziz Berradou, Research team AMIPS, Mohammed V University of Rabat, Morocco
Tarik Saikouk, International Logistics and Supply Chain Department, International University of Rabat, Morocco

ID 166  Applying Customer Relationship Management Principles in a Sales-Oriented Engineering Organisation
Linda Nhlengetwa, Hannelie Nel and Bheki Makhanya, Post-Graduate School of Engineering Management Faculty of Engineering, the Built Environment, University of Johannesburg, South Africa

ID 193  The Impacts of Second Order Construct of Personal Resources on Employees’ Job Performance and the Mediating Role of Affective Commitment: SEM Analysis Approach
Abdul Talib Bon and Abdirahman Mohamud Shire, Faculty of Technology Management, Business and Entrepreneurship, University Tun Hussein Onn Malaysia, Malaysia

Ahmad Ababneh and Pasqualina Porretta, Department of Management, Sapienza – University of Rome, Rome 00161, Italy
Aiman Hija, Finance Department, Food and Agriculture Organization of the United Nations, Rome, Italy

ID 268  Factors of the Innovation Ecosystem by Example of Latvian Technological Startup
Inese Ratanova and Inesa Voroncuka, Faculty of Business, Management and Economics, University of Latvia, LV-1586, Rainis Boulevard 19, Latvia

4:00 – 4:30 pm – Networking Break

Session – Thursday (July 25) – 4:30 – 6:00 pm

4:30 – 6:10, THURSDAY  Global Engineering Education XII  Room 1
Session Chair: Dr. Abdul Talib Bon, UTHM, Malaysia

ID 566  Model of Students’ Understanding on Thermodynamic Concepts in Learning with Virtual Labs
Gunawan, Ahmad Harjono, Hairunisyah Sahidu and Ni Made Yeni Suranti, Departmen of Physics Education, Universitas Mataram, Jln. Majapahit No 62 Mataram 83125, Indonesia
Lovy Herayanti, Physics Education Study Program, IKIP Mataram, Jln. Pemuda No 59A Mataram 83125, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 567  Model of Triple Jump Achievement: The Effect Method Learning and Motor Skills Youth 18 – 20 Age
Herli Pardilla, Achmad Sofyan Hanif, Hidayat Humaid, Mulyana and James Tangkudung, Universitas Negeri Jakarta, Sport Education Department, Jakarta Timur, Jakarta 13220, Indonesia
Samsuddin Siregar, Universitas Negeri Medan, Department of Physical Education, Bandung, Riau 28412, Indonesia
Jufrianis, Islamic University of Riau, Department of Physical Education, Medan 20221, Indonesia
Abdul Talib Bon, Department of Production and Operations Management, Faculty of Technology Management and Business, University Tun Hussein Onn Malaysia

ID 568  The role of academics’ organizational commitments on their extra role behavior in academic contexts
Isnawati Osman, Andi Reni, Ria Mardiana and Andi Nur Baumassepe, Hasanuddin University, Faculty of Economics and Business, Department of Management, Makassar, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 569  Model of Physical Condition of Leg Muscle Explosive Power, Nutrition Status and Confidence Towards Skill Smash Sepaktakraw
Jufrianis, Student of Department of Sport Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta, Indonesia and
Department of Physical Education, Universitas Pahlawan Tuanku Tambusai, Jalan Lingkar Bangkinang, Kampar, Riau, Indonesia
James Tangkudung, Hidayat Humaid, Achmad Sofyan Hanif, Firmanasyah Dils, Moch Asmawi and Widiastuti, Department of Sport Education, Universitas Negeri Jakarta, Jalan Rawamangun Muka Jakarta, Indonesia
Herli Pardilla, Department of Physical Education, Universitas Pahlawan Tuanku Tambusai, Jalan Lingkar Bangkinang, Kampar, Riau, Indonesia
Raffly Henjilito, Department of Physical Education, Universitas Islam Riau, Jalan Kaharuddin Nasution Marpoyan, Pekanbaru, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 572 Interactive Multimedia Product Based on Green Chemistry in the Acid-Base Concept of Chemistry Learning Process
M. Yustiqvar, Magister Program of Science Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia
Gunawan, Department of Physics Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia
Saprizal Hadisaputra, Department of Chemistry Education, Universitas Mataram, Jalan Majapahit No. 62, Lombok, 83125, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

4:30 – 6:30, THURSDAY Industry Solutions XII Room 2
Session Chair: Dr. Anil Kumar, University of Derby, United Kingdom (UK)
4:30 – 5:00 (Thursday)
Dr. Rajeev Agrawal
Associate Professor, Department of Mechanical Engineering
Industry-Institute Coordinator
Malaviya National Institute of Technology, Jaipur, India

How Lean Manufacturing is Helping Industries in India
5:00 – 5:30 (Thursday)
Ade Tutli Lestari
Department of Sport Education, STKIP Situs Banten, Indonesia
Department of Sport Education, Universitas Negeri Jakarta
Jakarta 13220, Indonesia

ID 565 Model of Treatment Media and Hand-Eye Coordination, Experimental Studies on Altras Softball Team
Ade Tutli Lestari, Department of Sport Education, STKIP Situs Banten, Indonesia and Department of Sport Education, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
James Tangkudung and Rizki Nurulfa, Department of Sport Education, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Puji Haryanti, Magister of Sport Education, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
One Laila, Department of English, STKIP Situs Banten, Serang 42121, Indonesia
Christian A Anggraini Motto, Faculty of Sport Science, Universitas Negeri Manado, Sulawesi Utara, Manado 95618, Indonesia
Dikdik Fauzi Derawan, Faculty of Sport Science, Universitas Singa Perbangsa, Jawa Barat, Karawang 41361, Indonesia
Basyarudin Acha, Faculty of Sport Science, Universitas Samudera, Banda Aceh 24415, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

5:30 – 6:00 (Thursday)
Dr. Anil Kumar
Senior Research Fellow in area of Decision Sciences
Centre for Supply Chain Improvement
University of Derby, United Kingdom (UK)

India’s Readiness towards Industry 4.0: A case analysis

4:30 – 6:00, THURSDAY Lean Six Sigma Room 3
Session Chair: Fernando González-Aleu, Universidad De Monterrey, San Pedro Garza García, N.L. México

ID 342 Improvement Production Capacity of Recycled Plastic Wood through Six Sigma DMAIC
Andrés R. Cruz Herrera, Estefanía Pozo Benavides, Jeanette del P. Ureña Aguirre and Leandro L. Lorente Leyva, Facultad de Ingeniería en Ciencias Aplicadas, Universidad Técnica del Norte, Ibarra, Ecuador

ID 390 Identifying Barriers of Lean Six Sigma Implementation in RMG Sector: A Case Study
Ferdous Sarwar, Farzana Islam, Md Sadman Sakib and Sampa Halder, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

ID 422 Development of A road map for Lean success factors in Malaysian SMEs Industry: Case Study Approach
Amjad Khalili, Department of Mechanical Engineering, Palestine Technical University Kadoorie (PTUK), Tulkarm, West Bank
Aimi Atiqah binti D Adzman and Md. Yusof Ismail, Department of Manufacturing and Materials Engineering, International Islamic University Malaysia, Gombak, Malaysia

ID 525 Capturing Voice of the Clients/Customers, a Systematic Approach to Greater Customers/ Clients Centricity by Applying Lean Six Sigma Methodology
Miss Aynaz Rahmatollahinamini, Senior in Industrial and System Engineering from Islamic Azad University in Tehran Iran
Miss Nazli Rahmatollahinamini, Master degree program in Management from University of Art and Science Tehran Iran
ID 459  Transport Operations Optimisation through Lean Implementation – A Case Study
Nicha Deesrisak, Jose Arturo Garza-Reyes, Simon Peter Nadeem, Anil Kumar and Vikas Kumar, Bristol Business School, University of the West of England, Bristol, UK
Fernando González-Aleu, Universidad De Monterrey, San Pedro Garza García, N.L. México
Bernardo Villareal, Universidad De Monterrey, San Pedro Garza García, N.L. México

4:30 – 6:30, THURSDAY  Decision Sciences  Room 4
Session Chair: Eman Lesmana, Universitas Padjadjaran, Sumedang, West Java, Indonesia

ID 426  Multi-criteria Supplier Selection for Implementing Lean Six Sigma Using Fuzzy AHP
Ferdous Sarwar, Farzana Islam, Md Sadman Sakib and Sampa Halder, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

ID 432  The Solvent Concentration Effect on Seaweed Processing to Quality of Semi Refined Carrageenan Production Using Meta-Analysis
Laela Chairani, Department of Agroindustrial Engineering, IPB Universit, Bogor, West Java, Indonesia, Department of Industrial Engineering, Pancasila University, Jakarta, Indonesia
Sukardi, Titi Chandra Sunarti and Faqih Udin, Department of Agroindustrial Engineering, IPB University, Bogor, West Java, Indonesia

ID 468  Graph Algorithm Vertex Coloring
Mochamad Suyudi and Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Terengganu, Malaysia
Abdul Taibl Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Johor, Malaysia

ID 469  Solving Traveling Salesman Problems Using Branch and Bound Methods
Mochamad Suyudi and Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Terengganu, Malaysia
Abdul Taibl Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Johor, Malaysia

ID 470  Comparison of Double Exponential Smoothing Holt and Fuzzy Time Series Methods in Forecasting Stock Prices (Case Study: PT Bank Central Asia Tbk)
Eman Lesmana, Nursanti Anggriani, Sukono and Fatimah, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Jl. Raya Bandung-Sumedang KM 21, Jatinangor 45363, Sumedang, West Java, Indonesia
Abdul Taibl Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

4:30 – 6:30, THURSDAY  Information Systems and Information Technology  Room 5
Session Chair: Dr. Eldon Caldwell, University of Costa Rica

ID 052  Cyber-security Policy Framework and Procedural Compliance in Public Organisations
Edison Wazoel Lubua, and Philip D Pretorius, North-West University, Vaal Campus, South Africa

ID 188  Augmented Reality for Technical Instructions – Challenges and Opportunities
Alina Fraczyk, Centre for Technical Communication School of Applied Linguistics, ZHAW Zurich University of Applied Sciences, Switzerland

ID 239  Augmented Reality in Industrial Applications: Technologies and Challenges
Adriana Carvalho, Fernando Charrua-Santos and Tânia M. Lima, C-MAST – Center for Mechanical and Aerospace Science and Technologies, University of Beira Interior, UBI, Covilhã, Portugal

ID 273  Predicting the Activity Index of Granulated Blast Furnace Slag Using Artificial Neural Network Models
Cenk Sahin, Yusuf Kuvvetli, Kubra Tumay Ates and Aykut Uysal, Adana Cimento Cement Company, Yuregir, Adana, Turkey

ID 274  Real-Time Fuzzy Rotation-Insensitive System for Motion Image Recognition
Adriano Breunig, Project and Institutional Coordination, Instituto Federal de Educação, Ciência e Tecnologia de Mato Grosso, Cuiaba / MT, Brasil

ID 049  Caldwell-t Algorithm Validation: Alternative proposal to the solution of Gupta for the sequencing of activities in processes of slender development of software
Eldon Caldwell, University of Costa Rica, San Jose, Costa Rica

4:30 – 6:00, THURSDAY  Statistics and Maintenance  Room 6
Session Chair: Galal M. Abdella, Department of Mechanical and Industrial Engineering, Qatar University, Doha – Qatar

ID 301  Evaluation of Saturated Hydraulic Conductivity at Adaptable Depths in a Sandy Loam Using the Beekan Method
Iftayyo Olufowemi, Timothy Laseinde and Damilola Dada, Dept. of Mechanical & Industrial Engineering, University of Johannesburg, South Africa

ID 307  Optimizing the Kiln Capacity by Developing Preventive Maintenance
Ghulam Yasin Shaikh, Mehran university of Engineering & Technology Jamshoro Sindh, Pakistan
Imran Khan Shaikh, Dawood University of Engineering & Technology, Karachi, Pakistan
Shakil Shaikh, Mehran University of Engineering and Technology, Jamshoro, Pakistan

ID 153  Sustainable Procurement in the Public Sector Case Study of Morocco
Houda Taoudi Benchekroun, Zoubida Benmamoun and Hanaa Hachimi, GS Lanoratory, ENSA Kenitra, Morocco

ID 534  Monitoring of Simple Linear Quality Profiles Using dEWMA Statistic under Uncertainty of Process Deviations
Galal M. Abdella, Khalifa N. Al-Khalifa and Abdel Magid S. Hamouda, Dept. of Mechanical and Industrial Engineering, Qatar University, Doha, Qatar
7:00 pm – 10:00 pm (Thursday, July 25)
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Distinguished Speakers – Industry Solutions

Tuesday, July 23, 2019

8:00 – 9:30 (Tuesday) – Room 2
Session Chair: Dr. Sharif, Indian Institute of Technology Kanpur, India

8:00 – 8:30 (Tuesday) – Room 2
Luis A. Mendoza del Villar
Posgrado en Ingeniería de Sistemas
Instituto Politécnico Nacional
Mexico City, Mexico

Luis A. Mendoza del Villar is a Ph.D. Student, and researcher assistant in the National Polytechnic Institute (IPN) in Mexico. He earned B.S. in Industrial Engineering from IPN-UPIICSA, Mexico, Masters in Industrial Engineering from Postgrad & Research Section (SEP) in the same academic unit, candidate of PhD program of Systems Engineering from Superior School of Mechanical and Electrical Engineering (ESIME z), Mexico, Research state visiting in University of Derby in 2019, UK. Master Luis’s work experience in engineering consultancy of material handling for bulk material and unit products with Johnson Controls, Nestle, All tube, the Coca Cola company, Bayer, among others. His research interests include sustainability, industrial development, Productivity, Innovation, manufacturing, and I 4.0. He is a member of the Latin America Systemic Association (ALAS).

ID 559: Towards Sustainable Industrial Development - A Systems Thinking-Based Approach
Luis A. Mendoza-del Villar and Eduardo Oliva-López, Posgrado en Ingeniería de Sistemas, Instituto Politécnico Nacional, Mexico City, Mexico
Octavio Luis-Pineda, Economía, Instituto Politécnico Nacional, Mexico City, Mexico
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, UK

8:30 – 9:00 (Tuesday) - Room 2
Dr. Abdul Talib Bon
Professor of Technology Management
Department of Production and Operations Management
Universiti Tun Hussein Onn Malaysia

Optimization Techniques for Transportation Problems in Warehouse of a Furniture Industry using Arena Simulation

Dr. Abdul Talib Bon is Professor of Technology Management in Department of Production and Operations Management, Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration major in Quality Management at the master’s level in the Universiti Kebangsaan Malaysia for which he was awarded MBA in the year 1998. He’s bachelor degree and diploma in Mechanical Engineering which he obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He is Director of Teaching Factory and Manager of Centre for Technology (Furniture Innovation Technology) from 1 September 2016 and Head of Program Bachelor of Technology Management (Furniture Design and Manufacturing) with Honours from 2014 until 2017. Before this he was the Deputy Dean (Research and Development) at the Faculty of Technology Management and Business in the Universiti Tun Hussein Onn Malaysia from 2008 until December 2011. Dr. Abdul Talib Bon has had over 30 year experience of teaching in higher learning education. A major part of his teaching experience involves teaching mechanical engineering students in polytechnics. However, from the year 1999, he was given the opportunity to be jointed in the Institut Teknologi Tun Hussein Onn (ITTHO), Universiti Teknologi Malaysia as a lecturer in Mechanical Engineering Department. In this institute, he teaches engineering management and quality control at the under-graduate level.

Dr. Abdul Talib Bon has multidisciplinary research interests that encompass industrial engineering, quality management and production and operation management. His completed 17 research grant projects as project leader include applications of forecasting in industries. His current research project is looking into developing process quality improvement (PQI) in manufacturing industries. He has supervised more than 90 undergraduate and postgraduate research projects. He has served as a reviewer for a number of engineering management and computer science conferences and journals as part of his expertise sharing initiatives. He had published more than 180 International Proceedings and International Journals and 8 books. He is also Fellow and President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), Professional Technologist of Malaysia Board of Technologists (MBOT), Council member of Management Science and Operation Research Society of Malaysia (MSORSM), member of International Association of Engineers (IAENG), member of Institute of Industrial Engineer (IIE), USA, member of International Institute of Forecaster (IIIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).

9:00 – 9:30 (Tuesday) – Room 2
Dr. Sharif
Head, I.A. Department
Indian Institute of Technology Kanpur
India

Dr. Sharif has been working with Indian Institute of Technology Kanpur for the past 18 years. He has professionally and academically specialized in the areas of Operations Management and applying the tools of expertise for quantitative and qualitative controls over the Inventory management. He has a Ph. D degree and his area of specialization is Operations Management. He has many publications in national and international journals to his credit. He has also authored a book titled “Materials and Purchase Management; Theory and Practice published by Narosa Publishing Pvt. Ltd. New Delhi in the year 2016. He has received 5 awards for his research publications.
9:30 Welcome Address: Dr. Miroslav Holeček, Rector, University of West Bohemia, Pilsen, Czech Republic


10:20 - 11:00 (Tuesday): Opening Keynote II - Prof. Ing. Josef Basl, CSc., Department of Industrial Engineering and Management, Faculty/Institute of Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic – Ballroom

Session II: Industry Solutions
11:30 am – 1:00 pm (Tuesday) – Room 2
Session Chair: Dr. Luis Rocha Lona, National Polytechnic Institute of Mexico, Mexico City, Mexico

11:30 – 12:00 (Tuesday) – Room 2

Itumeleng Gladwell Motlhatlhedi
Postgraduate School of Engineering Management
Faculty of Engineering and the Built Environment
University of Johannesburg
South Africa

Mr. Itumeleng Motlhatlhedi is a Technologist and he is a registered Professional Engineering Technician (Pr Techni Eng) with ECSA and has over 7 years’ experience in the rail environment with specialization in Overhead Traction Equipment (OHTE), Traction substations and Distribution substations. His experience has led to specialized knowledge of the variety of OHTE designs applied to 3kV DC and 25kV AC systems across South Africa. He is currently working as a Technologist in a railway consultancy company called R&H Rail (Pty) Ltd.

ID 165 Investigation of Project Delay in Construction Projects in the South African Rail Industry
Itumeleng Gladwell Motlhatlhedi, Hannelie Nel, Postgraduate School of Engineering Management Faculty of Engineering, the Built Environment University of Johannesburg South Africa

12:00 – 12:30 (Tuesday) – Room 2

Roya Derakhshanalavijeh
Department of Management, Economics and Industrial Engineering
Politecnico di Milano
Via Lambruschini 4 – 20156 Milan, Italy

Prof. Mauro Mancini
Associate Professor
Department of Management, Economics and Industrial Engineering
Politecnico di Milano
Italy

Mauro Mancini is associate professor at the Department of Management, Economics and Industrial Engineering and teaches Project Management and Industrial Plants at master degree programs and post graduate programs (at MIP). He is Director of an international Master in Project Management (past director of Executive Master in nuclear Plant Construction Management and in master in Strategic Project Management European) and member of ANIMP (Italian Association Industrial Plant Engineering). Vice-director of Corporate Relations at MIP Business School of Politecnico di Milano. Research topics: Project Management, Megaprojects and Building Information Modelling applied in different industrial sector like Energy (with special focus on nuclear, Oil and Gas and renewables), Construction and infrastructures.

ID 408 Rebuilding Organization’s Legitimacy in the Eyes of Local Community; Case Study of Oil and Gas Megaprojects
Roya Derakhshanalavijeh and Mauro Mancini, Dept. of Management, Economics and Industrial Engineering, Politecnico di Milano, Milan, Italy

12:30 – 1:00 (Tuesday) – Room 2

Dr. Jay Daniel
Senior Lecturer
Derby Business School
University of Derby
Derby, UK

Jay Daniel is a Senior Lecturer in the Derby Business School at University of Derby, United Kingdom. Before joining the Derby Business School, he was a Lecturer (Assistant Professor) in Supply Chain and Information Systems at University of Technology Sydney (UTS), Australia. Previously with DB Schenker, Australia, and Alliance International Registrar, Asia Pacific, Jay held positions of Senior Management Consultant, Supply Chain Solution Analyst, Project Manager, Industry Trainer and Lead Auditor. Dr. Daniel is actively engaged in teaching, research, and consulting on sustainable supply chain and information systems themes. His research is funded by Government agencies and industry collaborators, focusing on Sustainable Supply Chain, Business Analytics, Information Systems, and Decision Support Systems.

Tuesday Lunch Keynote - Dr. Zain Tahbout, Chief Advisor, Dubai Aviation Engineering Projects, Dubai, United Arab Emirates - Industrial Engineering and the Fourth Industrial Revolution: Education and Skills – Ballroom
Session III: Industry Solutions – Circular Economy
2:30 pm – 4:00 pm (Tuesday) – Room 2
Session Chair: Simon Peter Nadeem, University of Derby, U.K.

2:30 – 2:50 (Tuesday) – Room 2
Yinping Mu
School of Management and Economics
University of Electronic Science and Technology of China
Chengdu 610054, China

ID 156 Exchange Rate Risk Hedging for a Global Supply Chain of Nonstorable Commodity in Presence of a Spot Market
Yinping Mu, University of Electronic Science and Technology of China, China
Xiaoqiang Cai, The Chinese University of Hong Kong, Shenzhen, the Shenzhen Research Institute of Big Data, Guangdong, China
Xiaowo Tang, School of Management and Economics, University of Electronic Science and Technology of China, China

2:50 – 3:10 (Tuesday) – Room 2
Georgy Klushin
Center for Entrepreneurship and Innovation
Skolkovo Institute of Science and Technology
Skolkovo Innovation Center, Bolshoy Boulevard 30, building 1
Moscow 121295, Russia

Georgy Klushin, Skolkovo Institute of Science and Technology, Russia

3:10 – 3:30 (Tuesday) – Room 2
Dr. Agung Sutrisno
assistant professor
Department of Mechanical Engineering
Sam Ratulangi University
Manado, Indonesia

Agung Sutrisno is an assistant professor in the Department of Mechanical Engineering at Sam Ratulangi University, Manado, Indonesia. He earned B.E. in Metallurgical Engineering and M.Eng in Manufacturing Engineering from University of Indonesia in 1999 and 2001. His PhD Degree in Systems Management and Engineering obtained from Pukyong National University in 2012. He has published papers in peer reviewed conference and Journals. His research interests are in Quality and Reliability Management, Supply Chain and Operations Management and Sustainability Engineering.

ID 174 Categorization of Supply Chain Sustainability Risks in SMEs: A Preliminary Evidence from a Developing Country
Agung Sutrisno, Charles Punuhisong, Department of Mechanical Engineering, Sam Ratulangi University, Manado, Indonesia
Vikas Kumar, Bristol Business School, University of the West of England, Bristol, United Kingdom
Dwi Handayani, Department of Industrial Engineering, Universitas Islam Indonesia, Yogyakarta, Indonesia
Rudi K. Arief, Department of Mechanical Engineering, Universitas Muhammadiyah Sumatera Barat, Bukit Tinggi, Indonesia
Shinta Virdhian, Balai Besar Logam dan Mesin, Jl. Sangkuriang, Indonesia

3:30 – 4:00 (Tuesday) – Room 2
Simon Peter Nadeem
Lecturer
College of Business, Law and Social Sciences
Centre for Supply Chain Improvement
University of Derby, U.K.

Circular Economy practices in manufacturing sector – a case study
Simon Peter Nadeem is a Lecturer in the College of Business, Law and Social Sciences, and is associated with Centre for Supply Chain Improvement at the University of Derby, U.K. He has recently completed his PhD in the area of Operations Management with a focus on Circular Economy. As an early career researcher, he has published in high ranking peer-reviewed scientific journals such as International Journal of Production Research (IJPR) and Production Planning and Control (PPC). He has presented and published in International Conferences such as POMS, APMS, INCOM, IEOM and has contributed chapters and case studies in books. Simon’s research focus and expertise are in the areas of Circular Economy, Lean, Operations Management, Business Process Improvements, Sustainability, and Innovation. Formerly Simon has worked in administrative roles in the management of healthcare institutions. Alongside his research and teaching responsibilities, Simon is actively engaged with transport sector industries through the project Enscite, to conduct analysis on their operations and provide consultation for optimisations and improvements.

Session IV: Industry Solutions
4:30 pm – 6:00 pm (Tuesday) – Room 2
Session Chair: João Basto, INESC TEC – Technology and Science, Faculty of Engineering, University of Porto, Porto, Portugal

Sustainable Operations and Supply Chain Management Session

ID 122 Understanding Supply Chain Resilience: A Dynamic Approach Using Theory Of Constraints Current Reality Tree
Mohamed Hicham Salah Eddine, Abdelaziz Berradou, Research team AMIPS, Mohammed V University of Rabat, Morocco
ID 194  The Relationship between Price Satisfaction, Non-financial and Financial Performance  
Aries Susanty, Atika Andriyani, Industrial Engineering Department, Diponegoro University, Campus Tembalang, Indonesia

ID 228  Integrating Production Assessment with PPAP – A QFD Approach  
Chi-Shuan Liu, Horng-Chyi Horng, Department of Industrial Engineering and Management, Chaoyang University of Technology, Taichung, Taiwan

ID 241  Challenges in Managing Oil and Gas Supply Chain – An Exploratory Study  
Masha Menhat, Jagan Jeevan, Izyan Munirah Mohd Zaideen, School of Maritime Business and Management, University of Malaysia Terengganu, 21030 Kuala Terengganu, Terengganu, Malaysia  
Yahaya Yusuf, Lancashire Business School, University of Central Lancashire, Preston, Lancashire, UK

ID 244  Optimal Design of Additive Manufacturing Supply Chains  
João Basto, José Soeiro Ferreira, INESC TEC – Technology and Science, Faculty of Engineering, University of Porto, Porto, Portugal  
Symone G. S. Alcalá, Faculty of Sciences and Technology, Federal University of Goiás, Aparecida de Goiânia, Goiás, Brazil  
Enzo Frazzon, Industrial and Systems Engineering Department, Federal University of Santa Catarina, Florianópolis, Brazil  
Samuel Moniz, Department of Mechanical Engineering, University of Coimbra, Coimbra 3030-788, Portugal

Wednesday, July 24, 2019

Session V: Industry Solutions  
8:00 am – 9:30 am (Wednesday) – Room 2  
Session Chair: E. Innocents Edoun, University of Johannesburg, Pretoria, Gauteng, South Africa

Energy Session

ID 178  The Masking Effect due to Industrial Noise and Applying the Method of the Level of Interference with Speech  
Abderrezak Hocine, Mechanical Engineering Research Laboratory, Badjl Mokhtar Annaba University, Algeria

ID 018  Adoption of Eco cook stoves as a Way of Improving Energy Efficiency  
Mercy Manyuchi, University of Johannesburg, Johannesburg, South Africa

ID 068  Application of Multilayer Perceptron Neural Network Model for Predicting Industrial Sector’s Energy Consumption  
Olu Dolapo Olanrewaju, Durban University of Technology, Durban NA, South Africa

ID 110  An Integrated Statistical Long-Term Energy Modelling for Sustainable Energy Mix in Pakistan  
Muhammad Ali Shakir, University of Sargodha, Pakistan  
Imran Zahid, Department of Mechanical Engineering, Government College University, Faisalabad, Pakistan

ID 136  Steady State, Transient and Harmonic Behavior Analysis of Home Appliances  
Abdul Sattar Larik, Mukhtiar Ahmed Mahar, Department of Electrical Engineering, Mehran University of Engineering and Technology, Sindh, Pakistan

ID 151  Towards an Efficient Residential Electricity Consumption: An Assessment of the Effectiveness of Residential Electricity Efficiency-Incentive Subsidies Reform in Saudi Arabia  
Ramzi Alahmadi, Department of Industrial Engineering Tabah University AL Madinah, Saudi Arabia

ID 201  Wind Energy: A Case Study on Wind Power as an Alternative Source of Renewable Energy  
E. Innocents Edoun, Professor C Mbohwa, Mrs Thobile Yvonne Bhila, University of Johannesburg, Pretoria, Gauteng, South Africa

9:40 - 10:20 Wednesday Keynote I: Dr. Seifedine Kadry, Professor of Applied Statistics, Director of Applied Statistics Center, Coordinator of Continuing Education Program (CPE), Beirut Arab University, Lebanon – Ballroom

10:15 - 11:00 Wednesday Keynote II: Petr Nekolný, Simulation Department, Laboratories and Product Engineering, Valeo, Prague, Czech Republic - Ballroom
Session VII: Industry Solutions  
2:30 – 4:00 pm (Wednesday) – Room 2

Women in Industry and Academia (WIIA) Panel Session

Panel Chair

Ing. Denisa Hrušecká, Ph.D.  
HEAD OF DEPARTMENT  
Department of Industrial Engineering and Information Systems  
Faculty of Management and Economics  
Tomas Bata University in Zlín  
760 01 Zlín, Czech Republic

WIIA Panel Speaker I

Laila EL ABBADI, Ph.D.  
Professor of industrial engineering  
National School of Applied Sciences of Kenitra (ENSA-Kenitra)  
University Ibn Tofail  
Morocco

Laila EL ABBADI, Ph.D. is a professor of industrial engineering at the National School of Applied Sciences of Kenitra (ENSA-Kenitra), University Ibn Tofail, Morocco and a member of the Systems Engineering Laboratory attached to the same university. Her research focuses on Lean Manufacturing, production systems, quality management, Industry 4.0 and quality assurance in higher education.

Panel Speaker II

Priyanka C. Bhatt  
Professional Assistant  
Bennett University  
Times of India Group  
Greater Noida, India

Ms. Priyanka C. Bhatt is currently working as Professional Assistant at Bennett University, Bennett Coleman Co. Ltd., Greater Noida, India. She has an extensive experience of more than 4.5 years in area of computer engineering and information science. She has worked with institutes of national importance like SIDBI, IIT Kanpur; Homi Bhabha Centre for Science Education – Tata Institute of Fundamental Research, Mumbai; and National Medical Library, New Delhi. ‘e-services’ initiated by her at National Medical Library, New Delhi received appreciation from theHonorable Minister of Health and Family Welfare, Govt. of India, Dr. J.P. Nadda in 2016. She has more than five research contributions in international conferences and has published two books. Research areas of her publications include, social network analysis, data mining, cloud computing, ICT applications, etc.

WIIA Panel Speaker III

Dr. Hannelie Nel  
Senior Lecturer, Postgraduate School of Engineering Management  
Faculty of Engineering and the Built Environment  
University of Johannesburg  
South Africa

Dr. Hannelie Nel is a Senior Lecturer at the Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg. She holds a Doctorate in Engineering Management with twenty years’ experience in both industry and academia. Dr Nel is an Honorary Fellow of the Southern African Society for Industrial Engineering and currently serves on the Boards of Denel and the Society for Engineering Education. She is a registered professional engineer with the Engineering Council of South Africa; an Associate Member of the Institute of Directors; and a Member of the International Women’s Association.
Panel Chair: Professor Jose Arturo Garza-Reyes, University of Derby, UK

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

Editor-in-Chief, International Journal of Industrial Engineering and Operations Management (IJIEOM)

Prof. Jose Arturo Garza-Reyes is a Professor of Operations Management and Head of the Centre for Supply Chain Improvement at the College of Business, Law and Social Sciences, University of Derby, UK. He is actively involved in industrial projects where he combines his knowledge, expertise and industrial experience in operations management to help organisations achieve excellence in their internal functions and supply chains. He has also led and managed international research projects funded by the European Union, British Academy, British Council and Mexico’s National Council of Science and Technology (CONACYT). As a leading academic, he has published over 120 articles in leading scientific journals, international conferences and five books in the areas of operations management and innovation, manufacturing performance measurement and quality management systems. Areas of expertise and interest for Professor Garza-Reyes include general aspects of operations and manufacturing management, business excellence, quality improvement, and performance measurement. He is a Chartered Engineer (CEng), a certified Six Sigma-Green Belt, and has over eight years of industrial experience working as Production Manager, Production Engineer and Operations Manager for several international and local companies in both the UK and Mexico. He is also a fellow member of the Higher Education Academy (FHEA) and a member of the Institution of Engineering Technology (MIET).

Panel Speakers

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

Vikas Kumar is a Professor of Operations and Supply Chain Management and Director of Research & Scholarship at Bristol Business School, University of the West of England, UK. He holds a PhD degree in Management Studies from University of Exeter, UK. He has published more than 170 peer-reviewed articles in leading International journals and International conferences including the Journal of Business Research, International Journal of Production Research, Supply Chain Management: an International Journal, Expert System with Applications, International Journal of Production Economics, and Production Planning & Control. He serves on the editorial board of a number of international journals including The Int. J. of Industrial Engineering and Operations Management, Int. J. of Services, Economics and Management, Int. J. of Manufacturing Systems, and Int. J. of Lean Enterprise Research. He has successfully secured funding in the excess of £1 million from various research agencies such as EPSRC, Innovate UK, British Academy, Newton Fund and British Council. His current research interests include Sustainability, Circular Economy, Food Supply Chains, Operational Excellence, and Business Model Innovation.

Dr. Jiří Tupa
Vice Dean for Faculty Development
Faculty of Electrical Engineering
University of West Bohemia
Pilsen, Czech Republic

J. 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. Jin 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 management system for SMEs in the construction sector.

Dr. Luis Rocha Lona
Lecturer in Operations Management, Business School
National Polytechnic Institute of Mexico, México City, Mexico
Tec de Monterrey, Campus Santa Fe

Luis Rocha-Lona is a Lecturer in Operations Management at the Business School at National Polytechnic Institute of Mexico and at Tec de Monterrey, Campus Santa Fe. Luis Rocha graduated from the National Polytechnic Institute of Mexico (IPN) as Automation Control Systems Engineer. Then, he pursued an MSc in Control Systems with a major in information systems/manufacturing at the University of Sheffield, UK. He holds a PhD in Operations Management from The Manchester Business School. Dr Luis Rocha-Lona has eight years of working experience in the public and private sectors. He has lead several projects involved with service and manufacturing organisations and is currently supervising Master and PhD students at National Polytechnic Institute of Mexico.
8:00 – 8:30 (Thursday) – Room 2

Dr. William S. Edwards, Ph.D., PE, PMP  
Faculty, ISE Department  
Oakland University  
Rochester, Michigan, USA

Dr. William Edwards; PhD, PE, PMP started his career at Ford Motor Company Engine Design while at Ford Motor Company Dr Edwards won one of Ford’s Highest Honors – The Ford Customer Driven Quality Award for a 79% Reduction in Warranty. This Award along with a Complexity Reduction Award saved Ford Motor Company Money, Warranty Cost, Improved Quality, and Increased Customer Satisfaction. In 1997, he accepted a Promotion to Chrysler Engine Design to work on an International Engine Program with BMW building an Engine Plant in Brazil. The Engine Won one of Ward’s AutoWorld Top 10 Engine Awards and had the Best Warranty in the BMW line up. Next Dr Edwards led change in Chrysler’s Advance Manufacturing Engineering Division. There he led a SWAT Team of Engineers across North America to quickly Identify Manufacturing Issues and Implement resolutions. He instructed all Level of Chrysler Engineering and Production in Process Improvements and “Trained the Trainers”. Along the way, he secured his MSME to go with his BSME/BSEE. Beyond Formal Degreed Education, Dr Edwards was instructed by Dr Heywood - Massachusetts Institute of Technology (MIT) in Engine Combustion, Diesel Research Technology from the University of Wisconsin, and Lean Manufacturing by a disciple of Taiichi Ohno – the Father of the Toyota Production System. Dr Edwards also acquired his Professional Engineering License (P.E. License) and his Project Management Professional (PMP) Certification. In 2008, he took a leave of absence from the Automotive World to pursue his PhD. In 2011, he joined the Oakland University Industrial, Systems, & Engineering Management Staff. Dr Edwards brings 20 years of Background and Industry Connections to Oakland University to share with Students and Faculty. His research is in Optimizing Production Efficiencies. Dr Edwards consults in Manufacturing, Healthcare, runs Lean Workshops, and Instructs PMP Certification Classes. Dr Edwards is glad share his Unique Background and Talents with University Faculty and Students, Career Development Professionals, and the surrounding community.

ID 386: The Move It Forward Theory (MIFT) Offers a Better Method to Manage Major Machine Failure in a Serial Flow Line

William Edward, Sankar Sengupta and Michael Latcha, Oakland University, Michigan, USA

8:30 – 9:00 (Thursday) – Room 2

Dr. Mohammed Alkahtani  
Associate Professor, Industrial Engineering Department  
Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute  
King Saud University  
RIYADH, Saudi Arabia

Mohammed Alkahtani is an Associate Professor in Industrial Engineering Department, King Saud University, and Vice-Dean of Advanced Manufacturing Institute, King Saud University, Riyadh, Saudi Arabia. He earned his B.Sc. degree in Industrial Engineering from King Saud University (Riyadh, Saudi Arabia), a M.Sc. in Industrial Engineering from the University of Central Florida (Orlando, FL, USA), and a Ph.D. in Industrial Engineering from Loughborough University (Loughborough, UK). He has diverse expertise in Analysis and design of manufacturing systems, logistics, supply chain and operations management; application of simulation, mathematical modeling and optimization techniques to solve supply chain, logistics, and manufacturing systems problems; business process improvement and organizational design, responsiveness measurement, response modeling, lean and agility in manufacturing and supply chain.

ID 515  Supply Chain 4.0: A Shift in Paradigm

Mohammed Alkahtani, Industrial Engineering Department, College of Engineering, King Saud University, Riyadh-11421, Saudi Arabia, Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute, King Saud University, Riyadh-11421, Saudi Arabia  
Mustufa Haider Abidi, Raytheon Chair for Systems Engineering (RCSE), Advanced Manufacturing Institute, King Saud University, Riyadh-11421, Saudi Arabia

9:00 - 9:30 (Thursday) – Room 2

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

Ahad Ali is an Associate Professor and Director of Industrial Engineering Program and Director of Smart Manufacturing and Lean Systems, A. Leon Linton Department of Mechanical Engineering at the Lawrence Technological University, Southfield, Michigan, USA. 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 was Assistant Professor in Industrial Engineering at the University of Puerto Rico, United States. He has rich experience in Lean manufacturing, Six Sigma, and Simulation. He has served on the National Science Foundation (NSF) review team. He has published various papers in his field. In 2019, he presented at the IEOM Industry Solutions Conference in Pilsen, Czech Republic. He has also served as a reviewer for several journals and conferences. He has conducted numerous workshops and training sessions in lean manufacturing, Six Sigma, and simulation. He has been invited to speak at various conferences and seminars in the United States and abroad. He has also served as a consultant to various companies on lean manufacturing, Six Sigma, and simulation.
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 50 journal and 121 conference papers. Dr Ali has done 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 has successfully advised seven doctoral students. Dr. Ali has involved with many international conference committees. He has served as an Executive Director of IEM Society International and Conference Co-Chair of the International Conference on Industrial Engineering and Operations Management and hold events in Dhaka, Kuala Lumpur, Istanbul, Bali, Dubai, Orlando, Detroit, Rabat, UK, Bogota, Paris, Washington, DC, Pretoria and Bangkok. Dr. Ali has visited 20 countries for professional events. He is a member of IEOM, IN-FORMS, SME and IEEE.

Felicita Chromjaková is a Professor by Department of Industrial Engineering and Information Systems at the Tomas Bata University in Zlín, Czech Republic. She holds a Science degree in Industrial Engineering by University Žilina, Slovakia. Professor grade she holds at Tomas Bata University Republik. She is oriented on research project concerned into area of lean production process improvement and business information systems for both Czech and foreign students. She actively cooperates with many industrial companies where she participates in practical projects focused especially on improvement of production and logistic processes.

Denisa Hruščková
Senior Lecturer and Researcher
Department of Industrial Engineering and Information Systems
Tomas Bata University in Zlín
Czech Republic

Denisa Hruščková is a senior lecturer and researcher at Tomas Bata University in Zlín, Department of Industrial Engineering and Information Systems. In 2009, she received a Master degree in Industrial Engineering and later, in 2014, she defended doctoral thesis focused on advanced methods for production planning and scheduling. Currently, her research activities concentrate on modern logistic concepts, Logistics 4.0, theory of constraints and advanced methods for production planning and scheduling, optimization of material flows, digitization in logistic processes and Event-B modelling of production and logistic systems. She has taught courses focused on logistics, production process improvement and business information systems for both Czech and foreign students. She actively cooperates with many industrial companies where she participates in practical projects focused especially on improvement of production and logistic processes.

ID 401 Production Employees Knowledge in Digitized Production Environment
Felicita Chromjaková and Denisa Hruščková, Tomas Bata University in Zlín, Faculty of Management and Economics, Department of Industrial Engineering and Information Systems, Zlín, 76001, CZ.
Yulita Veranda Usman
Agroindustrial Engineering Department
Bogor Agricultural University, Bogor, Industrial Engineering Department, Pancasila University, Jakarta, Indonesia

Yulita V. Usman is a Lecturer in the Department of Industrial Engineering at Pancasila University. She graduated from The College of Industrial Management, Ministry of Industry, The Republic of Indonesia for a Bachelor degree. Her Master in Management of Small Medium Industry from Bogor Agricultural University and now Candidate Doctor in Agroindustrial Technology at Bogor Agricultural University. She is working on the project: Traceability in Distribution of Halal Fresh Broiler. She has published journal and conference papers. Her research interests include manufacturing, optimization, business process modeling, and system engineering.

ID 428 Business Process Modeling for Tracing Halal Food using BPMN
Yulita Veranda Usman, Agroindustrial Engineering Department, Bogor Agricultural University, Bogor, Industrial Engineering Department, Pancasila University, Jakarta, Indonesia
Anas Miftah Fauzi and Tun Tedja Irawadi, Chemistry Department, Bogor Agricultural University, Bogor, Indonesia

Session XII: Industry Solutions
4:30 pm – 6:00 pm (Thursday) – Room 2

Dr. Rajeev Agrawal
Associate Professor, Department of Mechanical Engineering
Industry-Institute Coordinator
Malaviya National Institute of Technology
Jaipur, India

Dr. Rajeev Agrawal is an Associate Professor in department of Mechanical Engineering at the Malaviya National Institute of Technology Jaipur, India. B.E. (Mechanical Engineering) from Government Engineering College, Jabalpur, India. M.E. (Production Engineering) from MNIT, Allahabad. PhD (Industrial Engineering) from Birla Institute of Technology, Mesra Ranchi. He has published Journal and conference papers. He is a member of Member of IE (India), Member of IAENG, Life Member of Indian Institution of Production Engineers (IIPE), Life Member of Indian Society of Technical Education,(ISTE). Research interest in Industrial Engineering, Lean manufacturing, Operations Management, Six Sigma, Sustainable Manufacturing.
Dr. Anil Kumar
Senior Research Fellow in area of Decision Sciences
Centre for Supply Chain Improvement
University of Derby
United Kingdom (UK)

Anil Kumar is a Senior Research Fellow in area of Decision Sciences at Centre for Supply Chain Improvement, University of Derby, United Kingdom (UK). For the last eight years, he has been associated with teaching and research. He earned his PhD in Management Science from Indian Institute of Information Technology and Management, Gwalior, India. He did his graduation in Mathematics (Hons) and MSc (Mathematics) from Kurukshetra University, India. He earned his Master of Business Administration (MBA) and qualified National Eligibility Test (NET), June 2011. He has contributed over 40+ research papers in international referred & national journals, and conferences at the international and national level. He has sound analytical capabilities to handle commercial consultancy projects and to deliver business improvement projects. He has skills and expertise of Advance Statistics Models, Multivariate Analysis, Multi-Criteria Decision Making, Fuzzy Theory, Fuzzy Optimization, Fuzzy Multi-Criteria Decision Making, Grey Theory and Analysis, Application of Soft-Computing, Econometrics Models etc. His areas of research are: sustainability science, green/sustainable supply chain management, customer retention, green purchasing behaviour, sustainable procurement, sustainable development, circular economy, Industry 4.0, performance measurement, human capital in supply chain and operations; decision modelling for sustainable business, and integration of operation area with others areas.

4th European IEOM Conference
Rome, Italy, July 22-24, 2020

Venue: The Faculty of Civil and Industrial Engineering of Sapienza – University of Rome
Website: www.ieomsociety.org/rome2020/

Conference Chairs:

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<tr>
<th>Dr. Mario Fargnoli</th>
<th>Prof. Mara Lombardi</th>
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<tr>
<td>Contract Professor</td>
<td>Department of Chemical Engineering Materials Environment (DICMA)</td>
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<tr>
<td>University of Rome “La Sapienza” and Technical Director</td>
<td>Faculty of Civil and Industrial Engineering Sapienza-University of Rome Rome, Italy</td>
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<td>Italian Ministry of Agriculture</td>
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<tr>
<th>Prof. Massimo Tronci</th>
<th>Dr. Patrick Dallasega</th>
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<tr>
<td>Department of Mechanical and Aerospace Engineering</td>
<td>Researcher - Assistant Professor Industrial Engineering and Automation</td>
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<td>Faculty of Civil and Industrial Engineering Sapienza - University of Rome Rome, Italy</td>
<td>Faculty of Science and Technology Free University of Bozen-Bolzano Bozen, Bolzano, Italy</td>
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<th>Dr. Matteo Mario Savino</th>
<th>Dr. Salvatore Miranda</th>
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<tr>
<td>Professor</td>
<td>Associate Professor</td>
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<tr>
<td>Industrial Operations and Industrial Management University of Sannio Benevento, Italy</td>
<td>Department of Industrial Engineering University of Salerno Fisciano (SA), Italy</td>
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Annual Production Engineering Week of Sorocaba (XI SEPS), May 22 - 23, 2019, Faculdade de Engenharia de Sorocaba (FACENS), The Sorocaba Engineering School, Sorocaba/SP, Brazil

Facens Student Chapter
Second IEOM Fellows Induction at the IEOM Bangkok Conference on March 6, 2019
First African IEOM Conference, Pretoria, South Africa, October 30 – November 1, 2018

Third North American IEOM Conference, Washington, DC, USA, September 27-29, 2018

Second European IEOM Conference, Paris, France, July 26-27, 2018
8th IEOM International Conference (Bandung, Indonesia, March 6-8, 2018)
1st South American IEOM Conference (Bogota, October 25-26, 2017)

High School & Middle School STEM Poster Competition Detroit 2019

IEOM Student and Professional Chapter Activities: www.ieomsociety.org/chapters/

Bulacan State University, Philippines
Universitas Tarumanagara, Indonesia

King Abdulaziz University, Rabigh, Kingdom of Saudi Arabia
University of Malaysia, Sabah

University of Windsor, Canada

Lawrence Technological University

University of New Brunswick at Fredericton, Canada
Government College University Faisalabad (GCUF), Pakistan

Khulna University, Bangladesh

IEOM Michigan Chapter

IEOM Price Sultan University, KSA Chapter

Guru Nanak Dev Engineering College, Punjab, India
IEOM King Fahd University of Petronius and Minerals (KFUPM) Seminar 2018

Sheridan College, Brampton, Ontario, Canada Presentation 2018

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

University of Costa Rica
IEOM Student Chapter can help students in the development or enhancement their outer important skills, including: leadership, communications, organization, planning, time management, budgeting and finance, and other professional skills. Those can help to prepare for their career and to be successful in longer term. If any student group of any educational institute is interested to form an IEOM Student Chapter, please submit chapter establishment form. Contact: info@ieomsociety.org.

Suggested Student Chapter Activities

- Workshops and Seminars
- Industry Speakers
- Plant Tours
- Communication Development

- Career Development
- Networking
- Poster and Paper Contest
- Fund Raising

- Membership Building
- Community Outreach
- Alumni Relations
- Leadership and Teambuilding Skills

International Journal of Industrial Engineering and Operations Management (IJIEOM)

www.ieomsociety.org/journals/

Scholar One Manuscript Central Submission Open

Editor-in-Chief - 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, United Kingdom
Phone: +44(0)1332593281, Email: J.Reyes@derby.ac.uk
### IEOM Professional Chapters

#### AFRICA
- IEOM Society of Botswana
- IEOM Society of Cameroon
- IEOM Society of Ethiopia
- IEOM Society of Ghana
- IEOM Society of Kenya
- IEOM Society of Libya
- IEOM Society of Morocco
- IEOM Society of Namibia
- IEOM Society of Nigeria
- IEOM Society of Tunisia
- IEOM Society of Zimbabwe

#### ASIA and AUSTRALIA
- IEOM Society of Australia
- IEOM Society of Bangladesh
- IEOM Society of Bhutan
- IEOM Society of Indonesia
- IEOM Society of Kazakhstan
- IEOM Society of Malaysia
- IEOM Society of Pakistan
- IEOM Society of Sri Lanka
- IEOM Society of Uzbekistan

#### EUROPE
- IEOM Society of Bulgaria
- IEOM Society of France
- EOM Society of Greece
- IEOM Society of Italy
- IEOM Society of Portugal
- IEOM Society of Russia

#### MIDDLE EAST
- IEOM Society of Iran
- IEOM Society of Iraq
- IEOM Society of Jordan
- IEOM Society of Lebanon
- IEOM Society of Qatar
- IEOM Society of Saudi Arabia
- IEOM Society of UAE
- IEOM Society of Yemen

#### NORTH AMERICA
- IEOM Society of Michigan
- IEOM Society of New York
- IEOM Society of Oregon
- EOM Society of Washington DC

#### SOUTH AMERICA
- IEOM Society of Colombia
- IEOM Society of Peru

#### CENTRAL AMERICA AND CARIBBEAN
- IEOM Society of Costa Rica
- IEOM Society of Honduras

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**Membership Benefits**
- Be part of the Diverse Industrial Engineering (IE) and Operations Management (OM) Profession
- Professional Development
- Access IEOM Publications
- IEOM Newsletters
- Access IEOM Online Resources
- Networking Opportunities
- Conferences and Seminars
- Career and Leadership Development
IEOM First Symposium on “Application-based Industrial Engineering Education”
Date: 4 August, 2018; Venue: Jessore University of Science and Technology (JUST), Bangladesh
Organized by JUST and IEOM Society of Bangladesh
Theme: Present scenario of IE Education in Response to Global Environment and Contribution of IE to Industrial Development in Bangladesh

IEOM Brazil 2018 Visit
IEOM Team has visited Production Engineering Department of Polytechnic School, University of Sao Paulo (USP), Brazil on June 25, 2018. Photos from left - Prof. Dr. Renato de Oliveira Moraes, Prof. Marcelo Schneck de Paula Pessoa (Deputy Department Head), Professor Don Reimer, Prof. Fernando José Barbin Laurindo (Department Head), Prof. Mauro de Mesquita Spinola, Dr. Ahad Ali, and Prof. Vitor Caldana (IFSP – Sorocaba).

IEOM team visited Department of Production Engineering at University of Sao Paulo - Sao Carlos (USP-SC), SP, Brazil: Prof. Reginaldo T. Coelho (Nucleus of Advanced Manufacturing, Institute Factory of Millennium), Prof. Vitor Caldana (IFSP – Sorocaba), Professor Don Reimer, Professor Eraldo Jannone da Silva (Nucleus of Advanced Manufacturing, Institute Factory of Millennium), and Prof. Aldo Roberto Ometto Coordinator of Post Graduate Program of Production Engineering at EESC-USP)
IEOM team visited Department of Production Engineering at Federal University of São Carlos (UFSCar), SP, Brazil. Dr. Ahad Ali, Prof. Dr. Roberto Antonio Martins, Professor Rosane L. Chicarelle Alcantara, Professor Hildo Meirelles de Souza Filho (Head of Production Engineering), Professor Don Reimer and Prof. Vítor Caldana (IFSP – Sorocaba).

Visited FACENS (Soracaba Engineering College), Sorocaba, SP, Brazil on July 3, 2018. Photo includes Eng. Paulo Roberto Freitas de Carvalho Facens (Director), faculty and students.

IEOM team visited Universidade Presbiteriana Mackenzie Campinas, SP, Brazil: Prof. João Carlos Gabriel - Coordinator of the Civil Engineering at the Center for Science and Technology - CCT – Mackenzie (far left) and Prof. Luiz Vicente Figueira de Mello Filho - Coordinator of the Production Engineering Course at Mackenzie Presbyterian University (far right).

Visited University of Sorocaba (UNISO), São Paulo, Brazil on July 2, 2018. Photo includes Mr. Osmar Renato de Barros Siqueira (center), Head of the International Office, Universidade de Sorocaba – Uniso.

IEOM team visited IFSP of Sorocaba campus, SP, Brazil on June 29, 2018. Photos include Ms. Cynthia Fisher (International Relations Advisor of The Federal Institute of Education, Science and Technology, São Paulo) and Dr. Denilson C. Mirim (Director – IFSP – Sorocaba).

IEOM Global Engineering Education Symposium Speakers at Instituto Federal de São Paulo – Campus Sorocaba, SP, Brazil: Dr. Ahad Ali (USA), Professor Donald M. Reimer (USA), Prof. Vítor M. Caldana (IFSP – Instituto Federal de São Paulo), Dr. Marcia Terra da Silha (Paulista University – UNIP) and Prof. MSc. Eliane Regina Rodrigues Message (ZorfaTec, SP, Brazil). Symposium Chair - Prof. Vítor M. Caldana.
IEOM Bangladesh Workshop
Lean Six Sigma Workshop at Comfit Composit Knit Ltd, Gorail, Tangail, Bangladesh, August 1, 2018

IEOM BUET Visit
In front of IPE Department, BUET on August 14, 2018 after IEOM Presentation to Faculty and Students.
With VC of BUET, showing IEOM activities on August 14, 2018

IEOM University of Monterrey (UDEM), Mexico Visit, May 29-30, 2018
IEOM Student Chapters around World

Australia
1. Queensland University of Technology (QUT), Brisbane

Bangladesh
2. Ahsanullah University of Science & Technology, Dhaka
3. Bangladesh Univ. of Engineering and Technology (BUET)
4. Islamic University of Technology (IUT)
5. JESSORE University of Science and Technology (JUST)
6. Khulna University
7. Khulna University of Engineering and Technology (KUET)

Botswana
8. University of Botswana

Brazil
9. Federal University of Sao Carlos (UFSCar)
10. Federal University of Santa Catarina (UFSC)
11. University of Sao Paolo (USP) – Sao Carlos
12. Federal Institute of Sao Paulo (IFSP) – Sorocaba
13. Faculdade de Engenharia de Sorocaba (FACENS)

Canada
14. University of New Brunswick at Fredericton
15. University of Windsor

Colombia
16. Fundación Univ. Tecn. Comfenalco, Cartagena, Bolívar
17. University of Rosario, Bogota
18. University of Quindío
19. Universidad de San Buenaventura, Cali, Valle

Costa Rica
20. University of Costa Rica

Czech Republic
21. University of West Bohemia, Pilsen

Ecuador
22. Technical University of Ambato

Egypt
23. Zagazig University

Finland
24. University of Vaasa

France
25. IESEG School of Management
26. Lorraine University, Metz

Greece
27. Technological Education Institute (TEI), Thessaly, Larissa

India
28. College of Engineering Guindy (Anna University), Chennai
30. Pandit Dendayal Petroleum Univ., Ahmadabad, Gujrat
31. P.D.A. College of Engineering, Gulbarga, Karnataka, India
32. Vellore Institute of Technology
33. Vidy Jyothi Institute of Technology, Hyderabad

Indonesia
34. Bina Nusantara University (Bunis), Indonesia
35. Institut Teknologi Bandung
36. Institut Teknologi Sepuluh Nopember (ITS)
37. Sampurna University, Jakarta
38. University of Indonesia
39. Universitas Sebelas Maret (UNS), Surakarta
40. Universitas Tarumanagara

Iran
41. MehrAstan University, Guilan
42. University of Eyyanekey

Iraq
43. Babylon University

Italy
44. University of Salento

Japan
45. Ashikaga University

Kenya
46. Kenyatta University, Nairobi

Malaysia
47. Universiti Malaysia Sabah (UMS)
48. Universiti Putra Malaysia (UPM)
49. Universiti Teknologi Malaysia (UTM)
50. Universiti Tun Hussein Onn Malaysia (UTHM)
51. Universiti Utara Malaysia (UUM)

Morocco
52. Akhawayn University
53. Ecole Mohammadia d’Ingénieurs (EMI)

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54. National Univ. of Sci. and Tech. in Windhoek, Namibia

Nepal
55. Kathmandu University
56. Tribhuvan University

Nigeria
57. Covenant University
58. University of Ibadan

Oman
59. Sultan Qaboos University

Pakistan
60. Dawood University of Engineering and Tech, Karachi
61. Government College University Faisalabad
62. Mehran Univ. of Engineering and Tech, Jamshoro, Sindh

Paraguay
63. National University

Peru
64. National University of San Antonio Abad, Cusco, Peru

Philippines
65. LPU Laguna
66. Bulacan State University, Malolos City, Bulacan

Qatar
67. Qatar University

Saudi Arabia
68. Alfaisal University
69. Effat University
70. King Abdulaziz University (KAU)
71. King Abdulaziz University, Rabigh
72. King Fahd University of Petroleum and Minerals (KFUPM)
73. King Saud University (KSU)
74. Prince Sultan University

South Africa
75. Tswane University of Technology (TUT)
76. University of Johannesburg (UJ)
77. University of South Africa (UNISA)
78. Vaal University of Technology (VUT)

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79. University of Kelaniya
80. University of Peradeniya

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81. Sudan University of Science and Technology, Khartoum

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82. Chulalongkorn University, Bangkok
83. Chiang Mai University

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84. University of Derby
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USA
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88. Lawrence Technological University, Michigan, USA

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89. Catholic University Andrés Bello (UCAB), Caracas

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90. University of Zimbabwe, Harare
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**Professor Bernardo Villarreal, Ph.D.**
Professor, Department of Engineering
Universidad de Monterrey
San Pedro Garza Garcia, NL
Mexico

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<th>Director of Publication</th>
<th>Executive Director</th>
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<td><strong>Mohammad Anwar Rahman, Ph.D.</strong></td>
<td><strong>Dr. Ahad Ali</strong></td>
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<td>Manufacturing and Construction Management, Central Connecticut State University, New Britain, CT, USA</td>
<td>Associate Professor, Director of IE Program, A. Leon Linton Dept. of Mechanical Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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IEOM Upcoming Events

4th North American Conference on Industrial Engineering & Operations Management
Toronto, Canada, October 23-25, 2019
Venue: Holiday Inn Toronto Interna. Airport

1st GCC International Conference on Industrial Engineering and Operations Management
Nov. 26-28, 2019, Riyadh, Saudi Arabia
Venue: Prince Sultan University (PSU) Campus

10th IEOM International Conference
Hyatt Regency, Dubai, United Arab Emirates (UAE)
March 10-12, 2020
Conference Website: www.ieomsociety.org/ieom2020/

2nd South American Conference on Industrial Engineering & Operations Management
São Paulo, Brazil, April 14-16, 2020
Venue: Maksoud Plaza Hotel, São Paulo

4th IEOM European Conference
Rome, Italy, July 22-24, 2020
Venue: The Faculty of Civil and Industrial Engineering of Sapienza - University of Rome, Italy
Conference Website: www.ieomsociety.org/rome2020/