## Sponsors and Partners

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## Organised by:

University of Derby  
University of the West of England  
IEOM Society International
Welcome to Bristol, UK and the First European International Conference on Industrial Engineering and Operations Management (IEOM), July 24-25, 2017

To All Conference Attendees:

On behalf of the IEOM Society, the University of Derby, the University of the West of England and all the technical sponsors and organising committee, we would like to welcome you to the First European International Conference on Industrial Engineering and Operations Management (IEOM) in Bristol, UK. 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 organisations. 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 156 papers/abstracts have been accepted from about 221 submissions representing more than 45 countries. The programme includes many cutting edge topics of 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 main challenges that mankind is currently facing; i.e. how to achieve sustainable economic and social growth while at the same time reducing environmental degradation, climate change and resources scarcity. The main theme of the conference is therefore “The Challenge of Industrial Engineering and Operations Management in Building Sustainable Manufacturing and Service Systems”. The 1st EU 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:

- **Opening Keynote I:** Chris Ditton, Director of Operations, OST-EUK, Olympus Surgical Technologies Europe, Cardiff, United Kingdom
- **Opening Keynote II:** Prof. Lukumon O. Oyedele, Director of Bristol Enterprise, Research & Innovation Centre, Univ. of the West of England, UK
- Prof. Jiju Antony, Professor of Operations Management, Dept. of Business Management, School of Social Sci., Heriot Watt University, UK
- Mr. David McDermaid, Business Development Manager, Siemens Industry Sector, Siemens Industry Software Limited, Solihull, UK

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
- 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 1st EU International Conference on Industrial Engineering and Operations Management (IEOM) 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. Distinguished speakers of the Global Engineering Education Series will include:

- Dr. Gulnara Abitova, Professor, Department of System Analyses and Control, Eurasian National University, Astana City, Republic of Kazakhstan
- Dr. Eldon Caldwell, Director, Industrial Engineering Department, Engineering School, University of Costa Rica, Cost Rica
- Dr. Klara Kövesi, Dr. Klara Kövesi, Associate Professor, Industrial Management and Innovation Marketing, ENSTA Bretagne, Brest, France
- Prof. Stuart C Burgess, Professor of Engineering Design, Department of Mechanical Engineering, University of Bristol, UK
- Dr. Zahid Usman, Researcher and Lecturer in Manufacturing Informatics, Robotics and Automation, and Manuf. Eng., Coventry University, UK
- Dr. Aydin Nassehi, Reader in Manufacturing Systems, Department of Mechanical Engineering, University of Bristol, UK
- Professor Ezendu Ariwa, Director and Adjunct Professor, Agriculture Mechanization Centre (AMC), Imo State Polytechnic Umuagwo, Nigeria
- Dr. Rami Hikmat Fouad Al-Hadeethi, Associate Professor, Industrial Technology & Operations Management, The University of Jordan, Jordan
- Mr. Foad Hosseinkhani, Director of Quality Assurance, Performance and Business Improvement, Amor Health Services, Inc., Texas, USA
- Prof. Abdul Taalib Bon, Prof. of Technology Management, Dept. of Production & Operations Management, Universiti Tun Hussein Onn Malaysia

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 Derby, the University of the West of England and all the technical sponsors and organising committee would like to express our deepest gratitude to our sponsors, university partners, authors, reviewers, keynote speakers, panel speakers, track chairs, local committee, advisors 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. Your Conference Planning Committee welcomes you to Bristol and wishes you an enjoyable learning experience at the conference and a safe and fun adventure exploring the UK with its many outstanding attractions and sightseeing derived from its multiculturalism.

Enjoy the conference, and the Bristol/UK experience.

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**Prof. Jose Arturo Garza-Reyes**
Conference Co-Chair
University of Derby, Derby, UK

**Dr. Vikas Kumar**
Conference Co-Chair
University of the West of England, Bristol, UK

**Dr. Ahad Ali**
Executive Director – IEOM Society
Lawrence Tech University, Southfield, MI, USA
First European International Conference on Industrial Engineering and Operations Management
Bristol, UK, July 24-25, 2017

Venue: The University of the West of England
www.ieomsociety.org/ieomuk/

OVERALL PROGRAM

July 24, 2017 (Monday)

07:00 – 17:00 Registration

09:00 – 9:30 Welcome Address - Lecture Theater
Professor Nicholas O'Regan, Associate Dean for Research
Ray McDowell, Associate Dean for Planning and Resources
Patricia Voaden, Head of the Department of Business and Management
University of the West of England (UWE), Bristol, United Kingdom

09:30 – 10:15 Opening Keynote I: Chris Ditton, Director of Operations, OSTE-UK, Olympus Surgical Technologies Europe, Cardiff, United Kingdom - Lecture Theater

10:15 – 11:00 Keynote II: Professor Lukumon O. Oyedele, Director of Bristol Enterprise, Research and Innovation Centre (BERIC), University of the West of England (UWE), Bristol, United Kingdom - Lecture Theater

11:00 – 11:30 Networking Tea Break at Ground Floor in Atrium

11:30 – 13:00 Parallel Sessions – Technical Presentations

13:00 – 14:30 Lunch Break and Networking

14:30 – 15:45 Parallel Sessions – Technical Presentations

15:45 – 16:00 Networking Tea Break at Ground Floor in Atrium

16:00 – 17:15 Parallel Sessions – Technical Presentations

17:30 Welcome Reception at Student Union Building, University of the West of England (UWE) and evening city tour on your own.

July 25, 2017 (Tuesday)

07:00 – 12:00 Registration

9:30 – 10:15 Keynote III: Professor Jiju Antony, Professor of Quality Management, Department of Business Management, Heriot Watt University, Edinburgh, United Kingdom - Lecture Theater

10:15 – 11:00 Keynote IV: David McDermaid, Business Development Manager, Siemens Industry Sector, Siemens Industry Software Limited, Solihull, UK - Lecture Theater

11:00 – 11:30 Networking Tea Break at Ground Floor in Atrium

11:30 – 12:45 Parallel Sessions – Technical Presentations

13:00 – 14:30 Lunch Break and Networking

14:30 – 15:45 Parallel Sessions – Technical Presentations

15:45 – 16:00 Networking Tea Break at Ground Floor in Atrium

16:00 – 17:15 Parallel Sessions – Technical Presentations

19:00 – 22:00 Award Dinner at M Shed (A museum in Bristol, England, located on Prince's Wharf beside the Floating Harbour in a dockside transit shed formerly occupied by Bristol Industrial Museum). Bus will be available from UWE.
Keynote Speakers

9:00 am (Monday, July 24) – Welcome Address

Professor Nicholas O’Regan, Associate Dean for Research
Ray McDowell, Associate Dean for Planning and Resources
Patricia Voaden, Head of the Department of Business and Management
University of the West of England (UWE), Bristol, United Kingdom

9:30 am – 10:15 am (Monday, July 24) – Opening Keynote I

Chris Ditton, C Eng, MI Mech E
Director of Operations, OSTE-UK
Olympus Surgical Technologies Europe
Cardiff, United Kingdom

Overcoming the Challenges to Operational Success

Mr. Ditton is an experienced, MBA educated General Manager with over 20 years of senior management experience across a number of blue chip organizations. He has expertise in Change Management with successful working partnerships with key stakeholders up to Board level, and a proven track record of developing and delivering complex cross-business unit, cross-functional change/improvement programmes. Mr. Ditton has held a series of senior positions in operations, engineering and procurement and have a strong track record of delivering required results and ensuring that internal issues are addressed and resolved.

His current responsibilities are in production, production planning, purchasing, maintenance & process development engineering at OSTE UK. Previous experience are works manager, head of operations, programme manager, consulting principal, with 35 years experience across a number of blue chip organizations, predominantly in the metals sector. His academic education: BSc (Hons) Mechanical Engineering at University of Nottingham, MBA at Warwick Business School.

10:15 am – 11:00 am (Monday, July 24) – Opening Keynote II

Professor Lukumon O. Oyedele
Director of Bristol Enterprise, Research and Innovation Centre (BERIC)
University of the West of England (UWE)
Bristol, United Kingdom

Professor Oyedele is currently the Chair Professor and Director of Bristol Enterprise, Research and Innovation Centre (BERIC) at the University of West of England Bristol, United Kingdom. BERIC is a multidisciplinary University Centre established to increase research funding and connect the university to businesses within the region, nationally and internationally, through innovation and enterprise. Concurrently, Professor Oyedele also holds the title of Chair Professor of Technological/Digital Enterprise and Project Management at the same University.

Preceding this, he was the Head of Division of Project Management and Sustainability Division at Queen’s University Belfast – QUB. At Queen’s University, he was also the founding Head of Construction and Project Management Department. In this role, he established both postgraduate masters and PhD programmes in Project Management and led the professional accreditation of the programmes with RICS, CIOB and ICE. Before moving into academic, Professor Oyedele was the CEO and Managing Director of Lahn Development (UK) Ltd. and prior to this he was a Project Director at a multinational company – Sagem S.A.

With research interests in Digital Technologies (i.e. BIM – Building Information Modelling, Big Data Analytics, IoT - Internet of Things, Virtual Reality and Augmented Reality – VR/AR) and Project Management, Professor Oyedele’s research has been funded by various UK funding bodies to the tune of £8.3 million. Some of the funded R&D projects include (i) £2 million grant from Innovate UK to develop a big data analytics platform for simulating and optimising whole-life delivery process of mega projects; (ii) £1.5 million from EPSRC and Innovate UK for a waste recovery information tool for the circular economy; and (iii) £700,000 from Technology Strategy Board on Smart Cities Information Modelling for Urban Resilience. He has also secured enterprise/industry-related income in excess of £3 million. In these projects, he has successfully developed and implemented digital innovation as Principal Investigator for large businesses in construction, aerospace, manufacturing, automotive, telecommunication, financial services and retail sectors.

Professor Oyedele has written more than 120 papers in peer-reviewed international journals and conferences. He is on the Editorial Board of five eminent Journals in his field. He has supervised eight PhD students and 75 Masters Theses to successful completion. In addition, he has also been a Visiting Professor to many universities in USA, Canada, China, India, Brunei, Malaysia and UAE. Professor Oyedele has also served on several advisory panels and committees of governments and multinational corporations in the UK and overseas in the areas of BIM, Big Data, Strategic Project Management, Digital Innovation, PPP/PFI Projects, Sustainability, Circular Economy and EU Public Procurement.

He has been an invited keynote speaker in several international conferences, seminars and workshops in UK, Ireland, Italy, USA, Canada, Singapore, Turkey, UAE, Vietnam, Thailand and China.

Beyond work and at a personal level, Professor Oyedele enjoys spending his time with his family, travelling, watching and playing football and lawn tennis. He is big fan of Rodger Federer in tennis and Jose Mourinho in football.
**Jiju Antony**, Ph.D., FIOM, FRSS, FCQI, FISSP, MBBLSS

Professor of Quality Management  
Department of Business Management  
School of Social Sciences (formerly School of Management and Languages)  
Heriot Watt University  
Edinburgh, United Kingdom  
Editor of International Journal of Lean Six Sigma  
Associate Editor of TQM and Business Excellence  
Associate Editor of Quality in Education (ASQ)

Professor Jiju Antony is recognised worldwide as a leader in Lean Six Sigma methodology for achieving and sustaining process excellence. He is a Professor of Quality Management in the School of Social Sciences at Heriot-Watt University, Edinburgh, Scotland. He founded the Centre for Research in Six Sigma and Process Excellence (CRISSPE) in 2004, establishing the first research centre in Europe in the field of Six Sigma. He is a Fellow of the Royal Statistical Society (UK), Fellow of the Chartered Quality Institute (CQI), Fellow of the Institute of Operations Management (FIOM), Fellow of the American Society of Quality (FASQ), and a Fellow of the Institute of the Six Sigma Professionals (ISSP). He has recently been elected to the International Academy of Quality. He is a Certified Lean Six Sigma Master Black Belt and has trained over 1200 people as Lean Six Sigma Yellow, Green and Black Belts from over 21 countries representing over 175 organisations in the last 10 years.

Professor Antony is currently coaching and mentoring over 20 Lean Six Sigma projects from various companies in the UK ranging from manufacturing, service to public sector organisations including the NHS, City Councils, NHS 24, Police Scotland, ACCESS, Business Stream, Scottish Water and University sectors including University of Strathclyde, University of Nottingham, University of Cork, Ireland and Purdue University, USA.

He has a proven track record for conducting internationally leading research in the field of Quality Management and Lean Six Sigma. Professor Antony has authored over 300 journal, conference and white papers and 8 text books. He has published over 100 papers on Six Sigma and Lean Six Sigma topics and is considered to be one of the highest in the world for the number of Six Sigma publications. Two of his papers published in 2002 entitled (Critical Success Factors for the successful implementation of Six Sigma projects in organisations (over 600 google citations) and Key Ingredients for the effective implementation of Six Sigma program (over 600 google citations)) have the highest citations making them the most referred to papers in the world in the field of Six Sigma. He has an h-index of 56 according to Google Scholar.

He has been successful in generating over £12 million worth of research money from various research funding bodies in the UK and abroad. He is the founder of the International Conference on Six Sigma and is also the founder of the International Conference on Lean Six Sigma for Higher Education. He was the past Editor of the International Journal of Six Sigma and Competitive Advantage and is currently serving as the Editor of the International Journal of Lean Six Sigma, Associate Editor of the TQM and Business Excellence Journal (Europe’s top ranked Quality Management Journal), and Associate Editor of Quality in Education (ASQ). He is serving on the Editorial Board of 10 international journals.

He has successfully supervised the Vice President of Innovation in Google and is currently supervising the Global Head of Process Improvement for World Bank, CEO of the Institute of Six Sigma Professionals, UK, Chief Superintendent of Police Scotland and Operations Director of Seafood Scotland for their PhD projects.

He has been a keynote speaker for a number of international conferences. Professor Antony has worked on a number of consultancy projects with several blue chip companies such as Rolls-Royce, Bosch, Siemens, Parker Pen, Siemens, Ford, Scottish Power, Tata Motors, Thales, Nokia, Philips, General Electric, NHS, Glasgow City Council, ACCESS, Scottish Water, University Sectors and a number of Small and Medium Sized Enterprises. He has been appointed as the Strategic Advisor for Continuous Improvement within Police Scotland since 2015.

**David McDermaid**  
Business Development Manager  
Siemens Industry Sector  
Siemens Industry Software Limited  
Cornwall House  
Blythe Valley Business Park  
Solihull, B90 8AF  
UK

Dave McDermaid has worked within the PLM industry for 20 years and has been responsible for helping customers identify and realise the vision of Product Lifecycle Management – Working with companies such as BAE Systems, Rolls-Royce, Dyson, JCB & Babcock, Dave has partnered with senior teams to develop high level roadmaps to deliver capabilities that change the paradigms of innovation, Product Development and Manufacturing Operations Management.

As part of the Siemens Digitalisation strategy, Dave is working with industry partners to develop future Industry 4.0 concepts that will revolutionise British Manufacturing.
Conference Committee

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Dr. Vikas Kumar, Bristol Business School, University of the West of England, UK

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SPECIAL TRACKS

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Dr. Mohamed Z. Al-Darzi, University of Sharjah, United Arab Emirates (UAE)  
Dr. Wang Er, Tsinghua University, China  
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Dr. Wang Er, Tsinghua University, China  
Dr. Ahmed Alghamdi, King Saud University, Saudi Arabia  
Dr. Mohamed Z. Al-Darzi, University of Sharjah, United Arab Emirates (UAE)  
Dr. Wang Er, Tsinghua University, China

Submissions Received from Countries and Territories

1. Algeria  
2. Bangladesh  
3. Brazil  
4. Canada  
5. China  
6. Colombia  
7. Costa Rica  
8. Finland  
9. France  
10. Georgia  
11. Germany  
12. Ghana  
13. India  
14. Indonesia  
15. Iran  
16. Ireland  
17. Israel  
18. Japan  
19. Jordan  
20. Kazakhstan  
21. Kenya  
22. Kuwait  
23. Malaysia  
24. Mexico  
25. Morocco  
26. Namibia  
27. Netherlands  
28. New Zealand  
29. Nigeria  
30. Oman  
31. Pakistan  
32. Portugal  
33. Russia  
34. Saudi Arabia  
35. South Africa  
36. South Korea  
37. Spain  
38. Sweden  
39. Taiwan  
40. Turkey  
41. United Arab Emirates  
42. United Kingdom  
43. United States  
44. Zambia  
45. Zimbabwe
Monday (July 24, 2017)

Session I: Global Engineering Education
11:30 am – 1:00 pm (Monday) - Room 3X105
Session Chair: Dr. Eldon Caldwell, University of Costa Rica

11:30 – 12:00 (Monday)

Dr. Gulnara Abitova
Professor, Department of System Analyses and Control
Eurasian National University
Astan City, Republic of Kazakhstan

Dr. Abitova holds Master's degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys at Moscow (Russian Federation). Ph.D degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been an invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work. Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakhstan Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from Minister of Education and Science of Kazakhstan for the Professionalism (2005-2009).

Dr. Abitova was also the National Coordinator of UNESCO's Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the International conferences (IEEE, SPIE, CSDM, (ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul (Turkey, 2012). Dr. Abitova’s current research interest includes education and science; management and administration in education, science and ITC; substantial development and ecology; human research; automation and control; control systems and engineering; cybernetics; mathematical modeling; sensors and control devices; designing automation lines; robust control and robust system; cloud technology; development of ITC; cyber security; open source and intelligent system; non-destructive testing technology.

12:00 – 12:30 (Monday)

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

Eldon Caldwell, is full professor/ Cathedralicus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Suma Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/ University of Nevada, USA. Currently, he is doctoral researcher at the (Dr. Sc.) Computing Science Program 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.

Dr. Caldwell is “Lean Systems Certificated Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Pritzed. 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, México. 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 Quirós & Cía-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management and 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- Perù, 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.
**Session II: Global Engineering Education**

2:30 pm – 3:45 pm (Monday) - Room 3X105

**Session Chair:** Dr. Stuart C Burgess, University of Bristol, UK

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### 2:30 – 2:55 (Monday)

**Dr. Klara Kövesi**

Associate Professor, Industrial Management and Innovation Marketing  
ENSTA Bretagne  
French Graduate and Post-Graduate Engineering School and Research Institute  
Department of Social and Human Sciences  
Brest, France

*Graduate Engineers’ Work-Readiness – Bridging the Mismatch between Industry Perception and Expectation*

Klara Kövesi holds Bachelor’s degree in computer sciences and Master’s degrees in business engineering and economics. She obtained PhD degree in management and marketing from University of Rennes 1, in 2008. She has nearly ten years industrial experience in telecommunication industry at several multinational companies and eight years teaching experience in academia. Currently, she is associate professor at ENSTA Bretagne in France. She teaches graduate courses in Industrial and Innovation Management, Marketing of New Technology and Entrepreneurship. She is member of the laboratory CRF (Research Laboratory of Education) at CNAM in Paris. Her research interests in engineering education are employability and placement, interdisciplinary collaboration, entrepreneurship learning and teaching.

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### 2:55 – 3:20 (Monday)

**Dr. Stuart C Burgess**

Professor of Engineering Design  
Department of Mechanical Engineering  
University of Bristol, UK

Stuart Burgess completed an engineering apprenticeship with Stothert and Pitt Cranes in Bath whilst completing a thin sandwich degree in mechanical engineering. After completing his PhD in the area of machine design he worked for the European Space Agency for 5 years mainly working on the ENVISAT earth observation satellite which is the largest civilian satellite in the world. He designed the solar array deployment mechanism including inventing a new type of gearbox – the double action worm gear set. He spent three years at Cambridge University as an Assistant Director of Research and Fellow of Selywn College. He has been at Bristol University since 1997 mainly working in the area of design optimisation of mechanical systems and biomechanical systems.

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### 3:20 – 3:45 (Monday)

**Dr. Zahid Usman (CEng MIMechE)**

Researcher and Lecturer  
Manufacturing Informatics, Robotics and Automation, and Manufacturing Engineering  
Coventry University  
United Kingdom

Dr. Usman is a chartered engineer with extensive experience in both industrial and research environments. His research experience expands to over six years within the areas of manufacturing information, machine vision, robotics and automation. He is an active researcher in robotic metrology and assembly, machine vision and manufacturing informatics. He has been involved in several research projects with leading aerospace and automotive industries. He also has experience of working for leading manufacturing organisations such as Rolls Royce and Massey Fergusons Tractors. As a teacher, Dr Usman is focused on training engineering students to be industrially ready by conducting industry based teaching. His areas of expertise are manufacturing knowledge sharing through ontologies, robotics and automation, vision assisted robotic metrology, assembly and joining.

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**Session III: Global Engineering Education**

4:00 pm – 5:15 pm (Monday) - Room 3X105

**Session Chair:** Dr. Rami Hikmat Fouad Al-Hadeethi, The University of Jordan, Amman, Jordan

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### 4:00 – 4:25 (Monday)

**Dr. Aydin Nassehi**

Reader in Manufacturing Systems, CIRP Associate Member, FHEA, MIET  
& Managing Editor of the International Journal of Computer Integrated Manufacturing  
Department of Mechanical Engineering, Queen’s Building  
University Walk, Clifton, Bristol, BS8 1TR, UK

*Industry 4.0: An industrial engineering and operations management overview*

Aydin Nassehi is a Reader in Manufacturing Systems at the University of Bristol. He received his PhD in Mechanical Engineering from the University of Bath. In 2007, Dr Nassehi was appointed to a Research Council UK Research Fellowship and has gained promotions to Lecturer in 2012, and Senior Lecturer in 2013. He also gained an MSc in Software Engineering with distinction from the University of Oxford in 2013. His expertise is in manufacturing interoperability, computational informatics including energy efficiency modelling and analysis of manufacturing
processes and knowledge based CAD/CAM and CAx systems. He has received £3.5m of national and international research funding and taken part in two FP7 projects namely DEMAT and, as the technical leader, STEPMAN. He has published over 90 refereed papers and been on technical & scientific committees of a number of international conferences including the FAIM series of conferences since 2008. He is a CIRP Associate Member, the convener of ISO standards group in charge of developing ISO14649 for cyber physical manufacturing resources (ISO TC184/SC1/wg7) and the Managing Editor of the International Journal of Computer Integrated Manufacturing.

4:25 – 4:50 (Monday)

**Professor Ezendu Ariwa**  
Director and Adjunct Professor  
Agriculture Mechanization Centre (AMC)  
Imo State Polytechnic  
Umuagwo, Nigeria

4:50 – 5:15 (Monday)

**Dr. Rami Hikmat Fouad Al-Hadeethi**  
Associate Professor  
Industrial Technology & Operations Management  
The University of Jordan, Amman, Jordan

An international, award winning Associate Professor of Industrial Technology & Operations Management whose solid understanding of business administration in an engineering context, passion for learning, and consultative leadership style are the driving forces behind a progressively successful 25+ year career. Enjoys inspiring students across the EMEA to achieve their full academic and personal potential. Founder of academic departments, colleges and programmes in Iraq and Jordan, and participant in worldwide conferences.

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**The International Federation of Engineering Education Societies (IFiEES)**

IFiEES was founded in 2006, at the American Society for Engineering Education’s Global Conference in Rio de Janeiro, Brazil. Engineering education leaders from around the world had gathered the previous year to explore to possibilities of creating an international organization for engineering education societies. IFiEES is proud to be leading the effort in connecting the world’s engineering education societies and leveraging our members’ collective strengths in order to improve engineering education worldwide. IFiEES members represent a diversity not only in cultures, but in engineering education interests, from quality assurance to engineering education, from pedagogy to the role of technology in the classroom. IFiEES member societies are expanding their global reach, and new relationships and collaborations are created all the time through IFiEES’s global network.

Through the collaboration of its member societies, IFiEES will work to establish effective engineering education processes of high quality around the world to assure a global supply of well-prepared engineering graduates. IFiEES will strengthen member organizations and their capacity to support faculty and students. It will attract corporate participation, helping to connect engineering graduates with international corporations that have a pressing need for well-trained engineers who can work in a global environment. IFiEES will also enhance the ability of engineering faculty, students and practitioners to understand the varied cultures of the world and work effectively in them.

**Global Engineering Deans Council (GEDC)**

Recognizing the global need for a world-wide forum of engineering deans and rectors, a group of over 20 leaders of engineering education institutions and corporate partners first met in Rio de Janeiro, Brazil, on 9 October 2006 and in Istanbul, Turkey, on 30 September 2007. Encouraged by IFiEES and modeled after the ASEE Engineering Deans Council (EDC), the Global Engineering Deans Council (GEDC) was created on 9 May 2008 in Paris, France. The main goal of the GEDC is to provide engineering deans and rectors with ideas, tools, and "best" practices necessary to become innovative leaders of engineering education.

The GEDC holds annual meetings surrounding four strategic objectives: Institutional Leadership, Curriculum Leadership, Policy Leadership and Accreditation Leadership. Accommodating for its diverse membership, the GEDC has met in Argentina, Brazil, Turkey, France, Singapore, People’s Republic of China, United States of America, Hungary, the United Arab Emirates, and will meet in Italy and Australia in 2015.

*Represented by Dr. Hans J Hoyer (Secretary General, IFiEES and Executive Secretary, GEDC)*

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11
Siemens partners with AMIE to foster diversity and inclusion.

Siemens PLM Software: Industry solutions for smart innovation.

For the eighteenth year, Siemens has partnered with Advancing Minorities Interest in Engineering (AMIE) to foster diversity and inclusion in its Product Lifecycle Management business unit. We’re proud to continue such a valuable partnership, which has contributed greatly to cultivating an environment of inclusion, respect and diversity throughout our organization and among our customer community.
siemens.com/plm

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### Program Matrix

#### Monday, July 24, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 3X105</th>
<th>Room 3X107</th>
<th>Room 3X108</th>
<th>Room 3X109</th>
<th>Room 3X114</th>
<th>Room 5X115</th>
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<tbody>
<tr>
<td>9:00 am</td>
<td><strong>Welcome Address:</strong> Professor Nicholas O'Regan, Associate Dean for Research, Ray McDowell, Associate Dean for Planning and Resources and Patricia Voaden, Head of the Department of Business and Management, University of the West of England (UWE), Bristol, United Kingdom - Lecture Theater</td>
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<tr>
<td>9:30 am</td>
<td><strong>Opening Keynote I:</strong> Chris Ditton, Director of Operations, OSTE-UK, Olympus Surgical Technologies Europe, Cardiff, United Kingdom - Lecture Theater</td>
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<tr>
<td>10:15 am</td>
<td><strong>Keynote II:</strong> Professor Lukumon O. Oyedele, Director of Bristol Enterprise, Research and Innovation Centre (BERIC), University of the West of England (UWE), Bristol, United Kingdom - Lecture Theater</td>
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<tr>
<td>11:00 am</td>
<td>Networking Tea Break at Ground Floor in Atrium</td>
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<tr>
<td>11:30 am</td>
<td>Global Engineering Education I</td>
<td>Lean Six Sigma</td>
<td>Undergraduate Research Competition</td>
<td>Supply Chain Management</td>
<td>Modeling and Simulation</td>
<td>Data Analytics</td>
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<tr>
<td>1:00 pm</td>
<td>Lunch Break, Poster Session, and Networking</td>
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<tr>
<td>3:45 pm</td>
<td>Networking Tea Break at Ground Floor in Atrium</td>
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<tr>
<td>4:00 pm</td>
<td>Global Engineering Education III</td>
<td>Lean Six Sigma</td>
<td>Operations Management and Operations Research</td>
<td>Sustainability and Green Systems</td>
<td>Project Management</td>
<td>Engineering Economy, Education &amp; Management</td>
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<tr>
<td>5:30 pm</td>
<td>Welcome Reception at Student Union Building, University of the West of England (UWE) and evening city tour on your own</td>
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#### Tuesday, July 25, 2017

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<tr>
<th>Time</th>
<th>Room 3X105</th>
<th>Room 3X107</th>
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<th>Room 3X114</th>
<th>Room 5X115</th>
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<tbody>
<tr>
<td>9:30 am</td>
<td><strong>Tuesday Keynote III:</strong> Prof. Jiju Antony, Professor of Quality Management, Department of Business Management, Heriot Watt University, Edinburgh, United Kingdom (Lecture Theater)</td>
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<td>10:15 am</td>
<td><strong>Tuesday Keynote IV:</strong> David McDermaid, Business Development Manager, Siemens Industry Sector, Siemens Industry Software Limited, Solihull, UK - Lecture Theater</td>
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<tr>
<td>11:00 am</td>
<td>Networking Tea Break at Ground Floor in Atrium</td>
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<tr>
<td>11:30 am</td>
<td>Industry Solutions</td>
<td>Service Systems and Service Management</td>
<td>Operations Management and Production Planning</td>
<td>Sustainable Manufacturing</td>
<td>Project Management</td>
<td>Lean Six Sigma</td>
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<tr>
<td>1:00 pm</td>
<td>Lunch Break, Poster Session, and Networking</td>
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<tr>
<td>3:45 pm</td>
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<tr>
<td>4:00 pm</td>
<td>Circular Economy and Computing</td>
<td>Energy and Resource Efficiency</td>
<td>Facilities Planning and Asset Management</td>
<td>Human Factors and Ergonomics</td>
<td>Inventory, Technology and Information Management</td>
<td>Sustainability in Supply Chains and Operations</td>
</tr>
<tr>
<td>7:00 – 10:00 pm</td>
<td><strong>Award Dinner at M Shed</strong> (A museum in Bristol, England, located on Prince’s Wharf beside the Floating Harbour in a dockside transit shed formerly occupied by Bristol Industrial Museum). Bus will be available from UWE.</td>
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Keynote Speech – Lecture Theater (1st Floor)

Parallel sessions will take place in rooms 3X105, 3X107, 3X108, 3X109, 3X114, 5X115 (3X - 3rd floor & 5X - 5th floor)

Welcome Reception at UWE - Reception at Student Union Building, University of the West of England (UWE)

Morning and Evening Tea Breaks will be held at ground floor in Atrium.
IEOM UK Conference  Parallel Sessions July 24-25, 2017

TECHNICAL PROGRAM

July 24, 2017 (Monday)

9:00 am – 9:30 am Welcome Address - Lecture Theater

Professor Nicholas O’Regan, Associate Dean for Research
Ray McDowell, Associate Dean for Planning and Resources
Patricia Voaden, Head of the Department of Business and Management
University of the West of England (UWE), Bristol, United Kingdom

9:30 am – 10:15 am Opening Keynote I: Chris Ditton, Director of Operations, OSTE-UK, Olympus Surgical Technologies Europe, Cardiff, United Kingdom - Lecture Theater

10:15 am – 11:00 am Opening Keynote II: Professor Lukumon O. Oyedele, Director of Bristol Enterprise, Research and Innovation Centre (BERIC), University of the West of England (UWE), Bristol, United Kingdom - Lecture Theater

11:00 am – 11:30 am Networking Tea Break - Ground Floor in Atrium

Session: 11:30 am – 1:00 pm

11:30 – 13:00, MONDAY Global Engineering Education I Room 3X105

Session Chair: Dr. Eldon Caldwell, University of Costa Rica

11:30 – 12:00 (Monday)

Dr. Gulnara Abitova
Professor, Department of System Analyses and Control
Eurasian National University
Astana City, Republic of Kazakhstan

12:00 – 12:30 (Monday)

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

12:30 – 13:00 (Monday)

OPEN

11:30 – 13:00, MONDAY Lean Six Sigma Room 3X107

Session Chair: Abdulaziz M. Almutairi, King Saud Medical City (KSMC), Cranfield University, UK

ID 30 Application of Theory of Constraints in South Africa: A case study in a platinum mine
Tlotlo Ramasu, Department of Quality and Operations Management, University of Johannesburg, Bunting Road, Johannesburg, South Africa
Kehinde Sobiyi and Esther Akinlabi, Department of Mechanical Engineering Science, University of Johannesburg, Auckland Park, South Africa

ID 36 Evaluation of optimisation methods on the shop floor of a serial production
Patrick Pöppers1, 2, Robert Schmitt1 and Bert Leyendecker2
1RWTH Aachen University, Laboratory for Machine Tools and Production Engineering, Steinbachstraße 19, 52074 Aachen, Germany
2University of Applied Sciences Koblenz, Faculty Operations Management, Konrad-Zuse-Str. 1, 56075 Koblenz, Germany

ID 44 A Review of Lean Tools versus Industrial Engineering Techniques in Manufacturing Practices
Sze Yee Thong, Zuraidah Mohd Zain and Chan Sin Tan, University Malaysia Perlis (UniMAP), Malaysia

ID 52 Lean Six Sigma (LSS) Practices of Supply Chain
Abdulaziz M. Almutairi, King Saud Medical City (KSMC), Cranfield University, Cranfield, MK43 0TQ, UK
Yuchun Xu and Konstantinos Salonitis, School of Aerospace, Transport and Manufacturing (SATM), Cranfield University, Cranfield, MK43 0AL, UK

ID 211 Barriers and Enablers of Lean Tools in Medical Laboratory Industry: A Case of Namibia
Michael Mutingi, Faculty of Engineering, Namibia University of Science and Technology, Windhoek, Namibia
Hilma D. Isack and Hileni Kandjeke, Faculty of Engineering, Namibia University of Science and Technology, Windhoek, Namibia
Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

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11:30 – 13:00, MONDAY  Undergraduate Research Competition  Room 3X108
Session Chair:  Dr. Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia

ID 124  Accommodating Solo Women Passengers When Making Seat Reservations
Ajwan Jan, Ayah Jamal-Allail, Noor Faidy and Nuran Tashkandi, Industrial Engineering Department, King Abdulaziz University, Jeddah, KSA
Raed Obaid & Rimal Abutaha, Industrial Engineering Department, King Abdulaziz University, Jeddah, KSA

ID 133  A review on transportation last-mile network design and urban freight vehicles
Jessica Calderon Guerrero, Industrial and Systems Engineering, Universidad de Monterrey, San Pedro Garza Garcia, N.L, 66238, Mexico
Jenny Díaz-Ramírez, Division of Engineering and Technologies, Dept. of Engineering, Universidad de Monterrey, San Pedro Garza Garcia, Mexico

11:30 – 13:00, MONDAY  Supply Chain Management  Room 3X109
Session Chair:  Aysenur Budak Istanbul Technical University, Macka, Istanbul, Turkey

ID 55  The bullwhip effect under count-time series: The case of first order integer auto-regressive demand processes
Bahman Rostami-Tabar and Stephen M. Disney, Logistics Systems Dynamics Group, Cardiff Business School, Cardiff University, Cardiff, UK

ID 91  Multi-Product Multi-Period Network Design for Reverse Logistics
Aysenur Budak and Alp Ustundag, Department of Industrial Engineering, Istanbul Technical University, Macka, Istanbul, Turkey

ID 101  How Are Supply Chain Optimal Decisions Influenced by Product Characteristics?
Mojtaha Mahdavi and Tava Lennon Olsen, The University of Auckland Business School, Auckland, New Zealand

ID 154  The Complete Solution of the Production Remanufacture and Waste Disposal Model with Lost Sales
Nadezhda Kozlovskaya and Knut Richter, Saint Petersburg State University, St. Petersburg, Russia

ID 159  Exploring the Secondary Co-operative Model in the Supply of Fabric to Primary Sewing Co-operatives
Mkwanazi Michael Sizwe, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa
Mbohwa Charles, Faculty of Engineering and Built Environment, University of Johannesburg, Auckland Park, South Africa

11:30 – 13:00, MONDAY  Modeling and Simulation  Room 3X114
Session Chair:  Annamalai Pandian, Saginaw Valley State University, MI, USA

ID 26  A Study on the Cycle Time of an Assembly Workstation using Application of Arena Simulation Software in a Furniture Industry
Abdul Talib Bon Ali and Muhammad Faizal Zulkifli, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

ID 38  BIW Process Modeling and Simulation Analysis
Annamalai Pandian, Mechanical Engineering Department, Saginaw Valley State University, University Center, MI, USA

ID 71  Process Flow Modelling and Optimization of a Foundry Layout in Zimbabwe using Simulation
Wilson R. Nyemba, Department of Mechanical Engineering Science, Faculty of Engineering and the Built, Environment, University of Johannesburg, Auckland Park 2006, Johannesburg, South Africa
Ruvimbo Mhlanga, Simon Chingwuwa, Department of Mechanical Engineering, University of Zimbabwe, Mount, Pleasant, Harare, Zimbabwe
Charles Mbohwa, Professor of Sustainability Engineering, Department of Quality and Operations Management & Vice Dean for Research and Innovation, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park 2006, Johannesburg, South Africa

ID 118  Hysteretic Delta-Sigma Modulator
Raed Althomali and Mohammed A. Alsumiri, Dept. of Electrical and Electronics Engineering, Yanbu Industrial College, Yanbu Al-Sinaiyah, KSA

ID 119  An Agent Based Control System for Multiple-load AGVs
Melek Demirtaş and Cenk Şahin, Department of Industrial Engineering, Cukurova University, Adana, Turkey

11:30 – 13:00, MONDAY  Data Analytics  Room 5X115
Session Chair:  Nur Hazwani Dzulkefly Coventry University, United Kingdom

ID 137  Historical Hashtags: An Investigation of the “#CometLanding” Tweets
Noor Farizah Ibrahim and Christopher Durugbo, School of Economics, Finance and Management, University of Bristol, Bristol, United Kingdom

ID 170  Fault diagnosis of gear transmission system on LMD and Cyclostationary Demodulation
Yao Zhuting, College of Mechanical and Power Engineering, North University of China, Taiyuan, 030051, China

ID 77  Multi-Criteria Decision Making: The Case of Large and Distinct Decision Makers
Anthony Afful-Dadzie and Eric Afful-Dadzie, Department of Operations Management and Information Systems, University of Ghana Business School, Accra, Ghana
ID 131  Investigating the Key Important Information Dimensions In Online Customer Reviews Through Ethnographically-Informed Consumer Study
Nur Hazwani Dzuikelly and John Halloran, School of Computing, Faculty of Engineering and Computing, Coventry University, United Kingdom

1:00 pm (Monday)  Lunch Break, Poster Session and Networking

Posters 1:00 – 2:30 pm (Monday, July 24, 2017)

ID 21  Managerial Solution for Hospital-acquired Infections
Yasaman Parsia, Puteri Fadzline Muhamad Tamyez and Shahryar Sorooshian, Faculty of Industrial Management, Universiti Malaysia Pahang, Gambang Kuantan, 26300, Pahang, Malaysia

ID 57  Robotic Polishing of Streamline Co-Extrusion Die: A Case Study
Srinivas Ganapathyraju and Shahab Ghafari, Sheridan Institute of Advanced Learning and Technology, Brampton, Ontario L6Y5H9, Canada

ID 74  Tying Industry 4.0 to existing research - What the past reveals on successfully adopting industry 4.0?
Nicolas Brune, David Bendig and Malte Brettel, Innovation and Entrepreneurship Group (WIN) – Center for Entrepreneurship, TIME Research Area, School of Business and Economics, RWTH Aachen University, 52072 Aachen, Germany

ID 87  Logistics Transportation integration to import steel slabs. A case study
Teresa Verduzco-Garza, Jorge Fernando Fonseca Sánchez, José Guadalupe Olvera Hernández and Bryan Raúl Rangel Martínez, Division of Engineering & Technologies, Department of Engineering, Universidad de Monterrey, San Pedro Garza García, NL, 66238, Mexico

ID 99  Revenue Structure of Mobile Banking: A System Dynamics Model
Mahdi Bastan and Reza Ramazani Khorshid-Doust, Department of Industrial Engineering & Management Systems, Amirkabir University of Technology, Tehran, Iran
Saeid Delshad Sisi, Department of Industrial Engineering, Clemson University, Clemson, USA
Sareh Akbarpour, Department of Industrial Engineering, Eyvaneky University, Eyvaneky, Iran

ID 138  Waste Reduction Applying Lean Thinking and Six Sigma Tools in Steel Industry
Vinicius de Souza Moura, Mechanical Engineering Department, PUCRS, Porto Alegre, Rio Grande do Sul, Brazil
Carlos Alexandre dos Santos, Dean, School of Engineering, PUCRS, Porto Alegre, Rio Grande do Sul, Brazil
Daniel Luiz de Mattos Nascimento, Civil and Environmental Engineering Department, PUC-Rio, Rio de Janeiro, Rio de Janeiro, Brazil
Rodrigo Goyannes Gusmão Caiado, Industrial Engineering Department, Federal Fluminense University, Niterói, Rio de Janeiro, Brazil

ID 140  Effective Integration of Operations Strategy Framework for Manufacturing SMEs
Adam Ali, Ivan Arokiam, Richard Anderson and Keith Popplewell, School of Mechanical, Aerospace and Automotive Engineering, Faculty of Engineering and Computing, Coventry University, CV1 5FB, UK
Jean-Marc Vasnier, Ecole d’ingénieurs Ei.Cesi, Boulevard de l’Université - Gavy Océanis, 44603 Saint-Nazaire, France

ID 146  Surface profile of objects for 3D printers by fringe pattern
Javier Cruz Salgado, Research and Technological Development Dept., Universidad Politécnica del Bicentenario (UPB), Silao, Guanajuato, México

ID 169  Adaptive Hysteresis Band Based Fuzzy Controlled Shunt Active Power Filter
Abdeldjabbar Mohamed Kouadria and Tayeb Allouaui, Department of Electrical Engineering, Energetic Engineering and Computer Engineering Laboratory, University of Ibn Khaldoun, Tiaret, Algeria
Mouloud Denai and George Pissanidis, School of Engineering and Technology, University of Hertfordshire, Hatfield, UK

ID 174  Exploring challenges impeding sustainable supply chain practices in mining industry
Ndala Yves Mulongo and Pule Kholopane, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, PO BOX, 524, Auckland Park, 2006, South Africa

ID 175  Cost analysis of South African Electricity Generation Plants
Ndala Yves Mulongo and Pule Kholopane, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, PO BOX, 524, Auckland Park, 2006, South Africa

ID 176  Analysing how to implement sustainability practices in supply chain trough the interaction of suppliers and customers
Ndala Yves Mulongo and Kholopane Pule, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park 2006, South Africa

ID 177  Exploring key factors creating food insecurity at household level
Ndala Yves Mulongo and Kholopane Pule, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park 2006, South Africa

ID 178  Exploring barriers and benefits of demand side management measures: utility, environment, energy system, and consumers
Ndala Yves Mulongo and Kholopane Pule, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park 2006, South Africa
2:30 pm – 3:45 pm (Monday)

Session Chair: Dr. Stuart C Burgess, University of Bristol, Bristol, UK

2:30 – 2:55 (Monday)

Klara Kövesi Ph.D.
Associate Professor, Industrial Management and Innovation Marketing
ENSTA Bretagne
French Graduate and Post-Graduate Engineering School and Research Institute
Department of Social and Human Sciences
Brest, France

Graduate Engineers’ Work-readiness – Bridging the Mismatch between Industry Perception and Expectation

2:55 – 3:20 (Monday)

Dr. Zahid Usman (CEng MIMechE)
Researcher and Lecturer
Manufacturing Informatics, Robotics and Automation, and Manufacturing Engineering
Coventry University
United Kingdom

2:30 – 3:45 pm, MONDAY Lean Six Sigma Room 3X107

Session Chair: Stella Zoë Mulombe, Management College of Southern Africa (MANCOSA), Johannesburg, South Africa

ID 102 Leveraging Industry 4.0 to extend Lean Manufacturing gains
Wendy Garner, Steve Martin and Richard Bateman, Coventry University, United Kingdom

ID 142 Study Analysis of Productivity Improvement Micro, Small And Medium Enterprises (MSMEs) Hand Craft With Line Balancing Method to improve and Enhance Sustainable Economic In Depok, Indonesia
Muhammad and Rahmat Nurcahyo, Industrial Engineering (IE) Dept., Faculty of Engineering, University of Indonesia, Depok, West Java, Indonesia

ID 144 Integration of simulation and Lean six sigma in improving productivity: Case study in steel shaft manufacturing SME
Thomas Munyai, Department of Operations Management, Tshwane University of Technology, Pretoria, South Africa
Charles Mbohwa, Faculty of Engineering and built Environment, University of Johannesburg, Johannesburg, South Africa

ID 165 An organization culture to facilitate Lean Implementation: Pilot Study
Abdullah Alkhorafi and Patrick McLaughlin, Cranfield University, United Kingdom

ID 152 An Investigation into the Causes of Continuous Resistance to the Implementation of a Centralised HR Support Services within a Global Mining House
Stella Zoë Mulombe and Chipo Mugova, Management College of Southern Africa (MANCOSA), Johannesburg, South Africa

2:30 – 3:45 pm, MONDAY Operations Management and Operations Research Room 3X108

Session Chair: Thong Sze Yee, Universiti Malaysia Perlis (UniMAP), Kangar, Perlis, Malaysia

ID 25 Effectiveness of ISO 14001 in the South African chemical industry
Sindisiwe Chauke and Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, South Africa
Kehinde Sobiyi, Department of Mechanical Engineering Science, University of Johannesburg, Kingsway Campus, Johannesburg, South Africa
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<tr>
<th>ID</th>
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<td>37</td>
<td>Efficiency Evaluation for Third Level Intensive Care Units (ICUs) By Data Envelopment Analysis in a Turkey Case</td>
<td>A. Nilgun Kayadelen and Z. Figen Antmen, Department of Industrial Engineering, Cukurova University, Adana, Turkey</td>
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<td>49</td>
<td>Location and Emergency Inventory Pre-Positioning for Disaster Response Operations: Min-Max Robust Model and a Case Study of Yushu Earthquake</td>
<td>Wenjun Ni, Department of Industrial and Manufacturing Systems Engineering, Faculty of Engineering, The University of Hong Kong, Hong Kong Jia Shu, Dept. of Management Science and Engineering, School of Economics and Management, Southeast University, Nanjing, Jiangsu, China Miao Song, Department of Logistics and Maritime Studies, Faculty of Business, The Hong Kong Polytechnic University, Hong Kong</td>
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<td>68</td>
<td>An Integrated inventory and routing for the single-period problems with deterministic demand</td>
<td>Mohd Kamarul Irwan Abdul Rahim, Rosman Iteng and Mohd Akhir Ahmad, School of Technology Management and Logistics, Universiti Utara Malaysia, UUM Sintok, Kedah, MALAYSIA.</td>
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<td>45</td>
<td>An Engineering Approach to Increase Chances of Data Capture-ability and Data Analyzability in Work Measurement Practices</td>
<td>Thong Sze Yee, Zuraidah Bt. Mohd Zain and Tan Chan Sin, Manufacturing Engineering, Universiti Malaysia Perlis (UniMAP), Perlis, Malaysia</td>
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<td>002</td>
<td>A Lean Transportation Approach for Reducing Distribution Cost: A Case Study</td>
<td>Bernardo Villarreal, Departamento de Ingenieria, Universidad de Monterrey, Ave. Ignacio Morones Prieto, San Pedro Garza Garcia, NL Mexico Jose Arturo Garza-Reyes, Derby Business School, The University of Derby, Derby Road Campus, Derby, UK, DE22 1GB Priscila Ocañas and Fernanda Martinez, Departamento de Ingenieria, Universidad de Monterrey, San Pedro Garza Garcia, NL 66238, Mexico</td>
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<td>54</td>
<td>A new diversification measurement technique in metaheuristics for vehicle routing problems</td>
<td>Muge ACAR and Onur KAYA, Industrial Engineering Department, Anadolu University, Eskisehir, TURKEY</td>
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<td>72</td>
<td>Newsvendor Based Pricing Model for Liner Shipping With Sailing Speed Optimization</td>
<td>Walaa Ishnaineh, Industrial Engineering and Engineering Management Department, University of Sharjah, Sharjah, UAE Ali Cheaitou, SEAM Research Group and Industrial Engineering and Engineering Management Department, University of Sharjah, Sharjah, UAE</td>
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<td>136</td>
<td>Reducing traffic lines with use of smart traffic control systems</td>
<td>Yash Pandya and Ritesh Joshi, Pandit Deendayal Petroleum University, Ahmadabad, India Poonam Savsani, Pandit Deendayal Petroleum University, Gandhinagar, India</td>
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<td>143</td>
<td>The Implementation Model of Smart Logistic Transport: Engineering Economic Analysis of Internet of Things (IoT)</td>
<td>Muhammad, Rahmat Nurcahyo and Irwan Dharmawan. Dutch Study Program, Faculty of Humanities, University of Indonesia, Indonesia</td>
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<td>149</td>
<td>Synchronizing Discrete Event Simulation Models and System Dynamics Models</td>
<td>Magdy Helal, Industrial Engineering Department, American University of the Middle East, Kuwait Luis Rabelo, Industrial Engineering and Management Systems Department, University of Central Florida, Orlando, FL, USA, 32816</td>
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<td>157</td>
<td>Simulation Modeling and Analysis of expected quantity, profit and discount margin for apparel industry</td>
<td>Shraddha Gawankar, Bhaskar Patel and Shraddha Gawankar, Robins School of Business, University of Richmond, Richmond, VA 23173, USA Bhaskar Patel, Sri Venkateswara College of Engineering &amp; Technology, R.V.S. Nagar, Tirupati Road, Chittoor - Andhra Pradesh, 517 127, INDIA</td>
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<td>173</td>
<td>Boundary layer and mesh refinement effects on aerodynamic performances of horizontal axis wind turbine (HAWT)</td>
<td>Y. El khchine and M. Sriti, Engineering Sciences Laboratory, Polydisciplinary Faculty of Taza, Sidi Mohamed Ben Abdellah Univ., Taza, Morocco</td>
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<td>139</td>
<td>Real Time Detection and Classification of Single and Multiple Power Quality Disturbance Based on Embedded S-Transform Algorithm in Labview</td>
<td>Mohd Fais Abd Ghanii, Ahmad Farid Abidin and Naeeem S. Hannoon, Faculty of Electrical Engineering, Universiti Teknologi Mara, Shah Alam, Selangor, Malaysia</td>
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<td>139</td>
<td>Mining social network content of online retail brands: An exploration of engagement, sentiment analysis and topic modelling</td>
<td>Noor Farizah Ibrahim and Xiaojun Wang, School of Economics, Finance and Management, University of Bristol, Bristol, United Kingdom</td>
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<td>61</td>
<td>Sustainable Micro-solar Solutions for Macroeconomic Betterment in Pakistan</td>
<td>Farhan Qazi, University of Management and Technology, Lahore, Pakistan Muhammad Naveed Tahir, FC College University, Lahore, Pakistan Ijaz Chaudhry, University of Management and Technology, Lahore, Pakistan</td>
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3:45 pm - 4:00 Networking Tea Break at Ground Floor in Atrium

4:00 pm – 5:15 pm (Monday)

**Global Engineering Education III**
Room 3X105

**Session Chair:** Dr. Rami Hikmat Fouad Al-Hadeethi, The University of Jordan, Amman, Jordan

**Dr. Aydin Nassehi**
Reader in Manufacturing Systems, CIRP Associate Member, FHEA, MIET & Managing Editor of the International Journal of Computer Integrated Manufacturing
Department of Mechanical Engineering, Queen’s Building
University Walk, Clifton, Bristol, BS8 1TR, UK

*Industry 4.0: An industrial engineering and operations management overview*

4:30 – 5:00 (Monday)

**Professor Ezendu Ariwa**
Director and Adjunct Professor
Agriculture Mechanization Centre (AMC)
Imo State Polytechnic
Umuagwo, Nigeria

5:00 – 5:30 (Monday)

**Dr. Rami Hikmat Fouad Al-Hadeethi**
Associate Professor
Industrial Technology & Operations Management
The University of Jordan
Amman, Jordan

4:00 – 5:15 pm, MONDAY  **Lean Six Sigma**  Room 3X107

**Session Chair:** Md. Noor-E-Alam, Northeastern University, Boston, MA, USA

**ID 172  6 sigma challenge during economic rescissions**
Khalid Al Khodhairi, Saudi Aramco, Riyadh, Saudi Arabia

**ID 179  Lean Transportation in Emergency Medical Operations**
Bernardo Villarreal, Edgar Granda, Samantha Lankenau, Andrea Montalvo & Ana Cristina Bastidas, Universidad de Monterrey, San Pedro Garza García, N.L., México
José Arturo Garza – Reyes, Derby Business School, The University of Derby, Derby, DE22 1GB, UK

**ID 210  Integrated Lean Concept to Healthcare Delivery Framework for Urgent Care at Home**
Ali Al Muflih and Md. Noor-E-Alam, Department of Mechanical and Industrial Engineering, Northeastern University, Boston, MA 02115, USA

**ID 212  Adoption of Lean Tools in Medical Laboratory Industry: A Case Study of Namibia**
Michael Mutini, Faculty of Engineering, Namibia University of Science and Technology, Windhoek, Namibia and Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa
Hilma D. Isack and Hileni Kandjeke, Faculty of Engineering, Namibia University of Science and Technology, Windhoek, Namibia
Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa
4:00 – 5:15 pm, MONDAY  Operations Management and Operations Research  Room 3X108
Session Chair: Harvey Millar, Sobey School of Business, Saint Mary’s University, Halifax, Nova Scotia, Canada

ID 89  Analysis of Sourcing Strategy under the Emissions Trading Scheme
Xin Ma, University of Exeter, Exeter, United Kingdom

ID 103  Time Series Forecasting for a Call Centre
Bahar Serenaroglu, Department of Industrial Engineering, Marmara University, Istanbul, Turkey and Department of Engineering and the Built Environment, Anglia Ruskin University, Chelmsford Essex, UK
Gokcag Polat, Department of Engineering Management, Marmara University, Istanbul, Turkey

ID 104  A Network-Based Model for Assigning Flights to Gates at Airports
Harvey Millar, Sobey School of Business, Saint Mary’s University, Halifax, Nova Scotia, Canada B3H-3C3
Jichen Zhang, Industrial Engineering Department, Dalhousie University, Halifax, Nova Scotia, Canada B3J-2X4

ID 8  Competition Analysis of Low Cost Carriers and Full Service Carriers of South Korean Airline Industry: A Lotka-Volterra approach for Jeju Island Travelers
Nokhaiz Tariq Khan, Department of Industrial Engineering, Sungkyunkwan University, South Korea
Jaebum Kim, Korea Institute of Technology, Jeju division, South Korea
Gisun Jung, Department of Industrial Engineering, Sungkyunkwan University, South Korea
Jinsoo Park, Department of Management Information Systems, Yong In University, South Korea
Yun Bae Kim, Department of Industrial Engineering, Sungkyunkwan University, South Korea

ID 206  The effectiveness of Business Process Reengineering in the Islamic Banks: The Information Technology as a moderator
Mohd. Rizal Razali and Norlena Hasnan, School of Technology Management and Logistics, Universiti Utara Malaysia, Kedah, Malaysia

4:00 – 5:15 pm, MONDAY  Sustainability and Green Systems  Room 3X109
Session Chair: Ndala Yves Mulongo, University of Johannesburg, South Africa

ID 135  A Methodology for Consideration of CO2 Emissions on the Single-Facility Location Problem
Santiago Omar Caballero Morales and José Luis Martínez Flores, Postgraduate Department of Logistics and Supply Chain Management, Universidad Popular Autónoma del Estado de Puebla, A.C, UPAEP, 17 Sur 711, Barrio de Santiago, 72410, Puebla, México

ID 190  Exploring Challenges Impeding Sustainable Supply Chain Practices in Mining Sector
Ndala Yves Mulongo and Pule Kholopane, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, PO BOX, 524, Auckland Park, 2006, South Africa

ID 62  An investigation of lean and green supply chain in the Industry 4.0
Susana Duarte and V. Cruz-Machado, UNIDEMI – Department of Mechanical and Industrial Engineering, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Campus Universitário, 2829-516 Caparica, Portugal

ID 22  Prediction of Residential Sector Energy Consumption: Artificial Neural Network Application
O.A Olanrewaju and C. Mbohwa, Industrial and Operations Department, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 41  Techno economic assessment for setting up a viable biogas plant at a local landfill in South Africa
M. M. Manyuchi, C. Mbohwa, E. Muzenda and S. Masebinu, Bioenergy and Environment Technology Research Group, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

4:00 – 5:15 pm, MONDAY  Project Management  Room 3X114
Session Chair: Armin Buckhorst RWTH Aachen University, Aachen, Germany

ID 65  Critical Success Factors and the “Iron Triangle”: A study in Project Manufacturing Environments
Antonio Carlos Pacagnella Junior, School of Applied Sciences, State University of Campinas, Limeira, São Paulo, Brazil
Sergio Luis da Silva, Production Engineering Department, Federal University of São Carlos, São Carlos, São Paulo, Brazil
Ormella Pacifico, Centro Universitário Estácio de Ribeirão Preto, Ribeirão Preto, São Paulo, Brazil

ID 50  Lean Production and Quality Performance in Malaysian Manufacturing Industries
Rosman Iteng, Mohd Akhir Haji Ahmad and Kamarul Irwan Irwan Abdul Rahim, School of Technology Management and Logistics, College of Business, Universiti Utara Malaysia, Sintok, 06010, Malaysia

ID 59  Quality Management 4.0 – Potentials and requirements of a holistic cloud-based approach towards a digital reflected production system
Armin Buckhorst and Robert H. Schmitt, Lab. for Machine Tools and Production Engineering (WZL), RWTH Aachen University, Aachen, Germany

Hj Mohd Akhir Hj Ahmad, Rosman Iteng and Mohd Kamarul Irwan Irwan Abdul Rahim, School of Technology Management and Logistics, University Utara Malaysia, 06010 Sintok, Kedah, Malaysia
4:00 – 5:15 pm, MONDAY  Engineering Economy, Education and Management  Room 5X115

Session Chair: Deepak C, Department of Management Studies, Indian Institute of Science, India

ID 215  Assessing Engineering students performance in Electronics course during first year of studies
Bolanle Tolulope Abe and Purva Shrivastava, Department of Electrical Engineering, Tshwane University of Technology, South Africa
Mukondeleli Grace Kanakana, Department of Industrial Engineering, Tshwane University of Technology, South Africa

ID 221  Evaluating challenges faced by female undergraduate students in engineering and the built environment
Grace Mukondeleli Kanakana, Department of Industrial Engineering, Tshwane University of Technology, Pretoria, 0001, South Africa
Bolanle Tolulope Abe and Purva Shrivastava, Department of Electrical Engineering, Tshwane University of Technology, Pretoria, 000, South Africa

ID 158  Supplier Development Funding: Evaluating a Funding Model for South African Manufacturing Co-operatives
Mkwanazi Michael Sizwe and Mbohwa Charles, Department of Quality and Operations Management, University of Johannesburg, South Africa

ID 196  Degree of Cluster Linkages and Innovation Performance of a Firm: A Study of Bengaluru High-tech Manufacturing Cluster
Deepak C and M H Bala Subrahmanya, Department of Management Studies, Indian Institute of Science, India

ID 216  Exploring the influence of Flexibility on Readiness to Deploy Manufacturing Process Innovation
Alireza Javahernia, Funlade Sunmola and Leslie Mitchell, School of Engineering and Technology, University of Hertfordshire, Hatfield, UK

5:30 pm  Welcome Reception at Student Union Building, University of the West of England (UWE) and evening city tour on your own

Tuesday, July 25, 2017

9:30 am - 10:15 am, Tuesday (Lecture Theater)

Keynote III  Professor Jiju Antony
Professor of Quality Management
Department of Business Management
Heriot Watt University, Edinburgh, United Kingdom

10:15 – 11:00 am, Tuesday

Keynote IV  David McDermaid
• Business Development Manager
Siemens Industry Sector
Siemens Industry Software Limited
Solihull, UK

11:00 am – 11:30 am  Networking Tea Break at Ground Floor in Atrium

11:30 am – 1:00 pm (Tuesday) Session

11:00 am – 1:00 pm, TUESDAY  Industry Solutions  Room 3X105

Session Chair: Foad Hosseinkhanli, Amor Health Services, Inc., Brownsville, Texas, USA

11:30 – 12:00 (Tuesday)

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

Capturing Voice-of-the-Customer/Client: A systematic approach to greater customer/centricity applying Lean Six Sigma Methodology
12:00 – 12:30 (Tuesday)

Dr. Abdul Talib Bon
Professor of Technology Management
Department of Production and Operations Management
Faculty of Technology Management and Business
Universiti Tun Hussein Onn Malaysia
Batu Pahat, Johor, Malaysia

*Industrial Engineering Solution in the Industry – A Study on the Cycle Time of an Assembly Workstation using Application of Arena Simulation Software in a Furniture Industry*

12:30 pm – 1:00 pm (Tuesday)

OPEN

11:00 am – 1:00 pm, TUESDAY  Service Systems and Service Management  Room 3X107

Session Chair: Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza García, N.L., México

ID 19  Service procedure of TGTDCL, Is it compatible with the modern world? A case study of TGTDCL
Md. Shamsuzzoha, Titans Gas Transmission and Distribution Company Ltd, Kawanbazar, Dhaka-1215, Bangladesh

ID 53  Loosely Coupled Microservice Architecture for Internet of Things
Ahmad Tamizi Abdul Ghan and Mohamad Shanudin Zakaria, Faculty of Information Science and Technology, Universiti Kebangsaan Malaysia

ID 94  Decreasing Ambulance Response Time through an Optimal Base Location
Bernardo Villarreal, Edgar-Marco-Aurelio Granda-Gutierrez, Samantha Lankenau, Ana-Cristina Bastidas and Andrea Montalvo, Universidad de Monterrey, San Pedro Garza García, N.L., Mexico

11:00 am – 1:00 pm, TUESDAY  Operations Management and Production Planning  Room 3X108

Session Chair: Shraddha Gawankar, University of Richmond, VA, USA

ID 130  An Industrial Engineering Approach of Improving Competitiveness within Automotive Part Manufacturing Industries in SA
John M Ikome, Department of Industrial Engineering, Vaal University of Technology, South Africa
Grace M Kanakana, Department of Industrial Engineering, Tshwane University of Technology, Pretoria, South Africa

ID 156  Effect of supply chain performance measures on supply chain profitability: an empirical investigation using structural equation modelling in Indian retail sector
Shraddha Gawankar, Sachin Kamble and Shraddha Gawankar, Robbins School of Business, University of Richmond, Richmond, VA 23173, USA
Sachin Kamble, National Institute of Industrial Engineering (NITIE), Vihar Lake Marg, Mumbai, Maharashtra 400087, INDIA

ID 185  Queuing Theory for Banking Application
Poonam Sasvani and Ravi Nasit, Department of Industrial Engineering, School Of Technology, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat- 382007, INDIA

ID 3  Multi-Item Multi-Period Setup Carryover Capacitated Lot Sizing Problem
Harvey Millar, Millar Mary's University, Halifax, Canada

ID 117  The Impact of Logistics Tools on Planning and Control Activities for Production And Inventory
Diana Sánchez-Partida and José-Luis Martínez-Flores, Department of Logistics and Supply Chain Management, UPAEP University, Mexico
Yessica Cruz-Hernández, Department of Industrial Engineering, ITC University, Mexico
Erin Chancey, Department of Logistics and Supply Chain Management, UPAEP University, Mexico

11:00 am – 1:00 pm, TUESDAY  Sustainable Manufacturing  Room 3X109

Session Chair: Ndlovhuwo Ndou, Unisa, South Africa

ID 70  A model to integrate core cleaning & product serviceability into product modularity for enhanced remanufacturing – product service system synergy
Johnson Adebayo Fadeyi and Leslie Monplaisir, Department of Industrial & Systems Engineering, Wayne State University, Detroit, MI 48202, USA

ID 180  The Development Strategy of Sustainable Bioenergy Investment in Indonesia based Palm Biomass Feedstock
Sawarni Hasibuan¹, Hermawan Thaheer², R. Eddy Nugroho², Juliza Hidayati⁴
¹Master’s of Industrial Engineering, UniversitasMercuBuana Jakarta, Indonesia
²Computer Science Department, UniversitasPakuan, Bogor, Indonesia
³Master’s of Management UniversitasMercuBuana Jakarta, Indonesia
⁴Industrial Engineering Department, Universitas Sumatera Utara Medan, Indonesia

ID 42  Development of an effective maintenance concept for enhancement of competitive advantage: A case study of East African Portland Cement Company
Japheth Ombogo, East African Portland Cement, Nairobi, Kenya

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ID 20 Influence of laser power on the wear resistance of laser deposited Ti6Al4V/W composites
Ndivhuwo Ndou, Unisa, South Africa

11:00 am – 1:00 pm, TUESDAY Project Management Room 3X114
Session Chair: Mohammed Alkahtani, King Saud University, Riyadh, Saudi Arabia

ID 95 Group Modeling-Building: The Environment, Culture and Work Conditions Impact on the Process
Sadia Rina, Department of Industrial and Management Engineering, Shenkar College of Engineering and Design, Ramat-Gan, Israel

ID 114 Inspection System using Vision system
Kartik Shah, Dept. of Industrial Engineering, School of Technology, Pandit Deendayal Petroleum University, Raisan, Gandhinagar, Gujarat, India
M.B. Kiran, Department of Industrial Engineering, Pandit Deendayal Petroleum University, Raisan, Gandhinagar-382007, Gujarat, India

ID 120 Experimental Design for Analyzing Shade Variation in Dyeing Process
Bahar Sennaroglu
Department of Industrial Engineering, Marmara University, Istanbul, Turkey
Department of Engineering and the Built Environment, Anglia Ruskin University, Chelmsford Essex, UK

ID 151 Quality Control in a University Laboratory: Evaluating the Gap between ISO/IEC-17025 Requirements and the Thin Section Laboratory's Processes
Bongumusa Mansuette Bhekamalinda Cebekhulu, School of Mining Engineering, Wits University, Johannesburg, RSA
Chipo Mugova, Management College of Southern Africa (Mancosa), Johannesburg, RSA

11:00 am – 1:00 pm, TUESDAY Lean Six Sigma Room 5X115
Session Chair: Adrián Peña Sánchez, University of Hertfordshire, Hatfield, UK

ID 222 Evaluation of the Attitudes and Perceptions of Employees towards the Implementation of Six Sigma to improve quality in an Electric Cable Manufacturing Company in South Africa
Shitlhangu Raymond Khambani, Mancosa Graduate School of Business, Durban, South Africa
Chipo Mugova, Mancosa Graduate School of Business, Durban, South Africa
Bongumusa Mansuette Bhekamalinda Cebekhulu, Wits School of Mining Engineering, Johannesburg, South Africa

ID 223 Challenges and Opportunities for Distribution Networks in India
Shivam Trivedi and Nihal Bhatt, School of Technology, Pandit Deendayal Petroleum University, Raisan, Gandhinagar, India

ID 198 Factors Influencing Effectiveness of Lean Maintenance Repair and Overhaul in Aviation
Adrián Peña Sánchez and Funlade Sunmola, School of Engineering and Technology, University of Hertfordshire, Hatfield, AL10 9AB, UK

1:00 pm Lunch Break, Poster Session and Networking

2:30 pm - 3:45 pm (Tuesday)

ID 31 Design of an automated carrot peeling machine
Tawanda Mushiri, department of Mechanical Engineering, University of Johannesburg, P.O Box APK 524, Johannesburg, South Africa
Dennis M. Mupatsi, Department of Mechanical Engineering, University of Zimbabwe, P.O Box MP167, Mt Pleasant, Harare, Zimbabwe
Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, P.O Box APK 524, Johannesburg, South Africa

ID 33 Intelligent grading and motion prediction dynamics of tobacco
Tawanda Mushiri, Department of Mechanical Engineering, University of Johannesburg, P.O Box APK 524, Johannesburg, South Africa
Napoleon Sithole, Department of Mechanical Engineering, University of Zimbabwe, P.O Box MP167, Mt Pleasant, Harare, Zimbabwe
Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, P.O Box APK 524, Johannesburg, South Africa

ID 129 Improving casting productivity by utilizing automation
Grace Mukondeleli Kanakana and Laseinde Thimothy Opeyeolu, Industrial Engineering Dept., Tshwane Univ. of Technology, Pretoria, South Africa
ID 183 Study and Design of Mathematical Models for Chemical-Technological Systems under Conditions of Uncertainty Based on the System Analysis
Kenzhebaeva T.S., Oraibayev B.B. and Abitova G.A., Department of System Analyses and Control, L.N. Gumilyov Eurasian National University, Astana, 010000, Kazakhstan
Oraibayev K.N., Department of Management, Kazakh University of Economy, Finance and International Trade, Astana, 010000, Kazakhstan
Spichak Y.V., Department of Electroenergy and Automation of the Technical Systems, Karaganda State Industrial University, Temirtau, Kazakhstan

2:30 – 3:45 pm, TUESDAY Manufacturing Design and Intelligence Room 3X107
Session Chair: Eldon Glen Caldwell Marin, University of Costa Rica, San José, Costa Rica

ID 32 Finite element analysis of a cubesat
Kudzanai Sekerere, Department of Mechatronic Engineering, Chinhoyi University of Technology, P. Bag 7724, Chinhoyi, Zimbabwe.
Tawanda Mushiri, Dept. of Mechanical Engineering, University of Zimbabwe, P.O Box MP 167, Mt Pleasant, Harare, Zimbabwe

ID 75 Conceptualization of a New Product Development Framework for Eddy Current Braking Systems for Heavy Vehicles in Zimbabwe
Wilson R. Nyemba, Department of Mechanical Engineering Science, Faculty of Engineering and the Built, Environment, University of Johannesburg, Auckland Park 2006, Johannesburg, South Africa
Chris Pole and Tawanyaashe Chikuku, Department of Mechanical Engineering, University of Zimbabwe, Mount, Pleasant, Harare, Zimbabwe
Charles Mbohwa, Professor of Sustainability Engineering, Department of Quality and Operations Management & Vice Dean for Research and Innovation, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park 2006, Johannesburg, South Africa

Manufacturing Intelligence - Special Track

ID 110 System Design and Organizational Management Considerations for a Digital Factory
Pranav Ketharam Pattabi, Department of Electrical and Computer Engineering, University of Toronto, Toronto, Canada

ID 199 Multi-Response Optimization of EDM for Ti-6Al-4V using Taguchi – Response surface methodology
Gopal Zinzala and Ritesh Joshi, Department of Industrial Engineering, School of Technology, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat- 382007, INDIA

ID 86 An exploratory critical review on assistive robotics applied to autism spectrum: employability challenges
Eldon Glen Caldwell Marin, Department of Industrial Engineering, University of Costa Rica, San José, Costa Rica
Miguel Cazorla, University Institute for Computing Research, University of Alicante, Alicante, Spain
Mauricio Zamora, Smart, Lean & Cognitive Systems Lab., University of Costa Rica, San José, Costa Rica
José García and Jorge Azorin-Lopez, Industrial Informatics and Computer Networks Research Group, University of Alicante, Alicante, Spain

2:30 – 3:45 pm, TUESDAY Operations Management and Operations Research Room 3X108
Session Chair: Udonna Okeke, University of the West of England, Bristol, United Kingdom

ID 189 Maintenance staff scheduling: A case study
Tamer G. Ali, Adel M. Al-Shaye’a and Mohamed Aly O. Louly, Department of Industrial Engineering, King Saud University, Riyadh, Saudi Arabia

ID 195 The role of participant governed networks in implementing healthcare innovations into practice. Evidence from the UK NHS
Udonna Okeke and Wendy Phillips, University of the West of England, Bristol, United Kingdom

ID 208 A novel model; Dynamic Organization (DO) presented for refining companies in turbulent market based on the idolizing the atmosphere of basketball game
Mahdis Kanani, Master of Socio-Economic Engineering, National Iranian Oil Refining & Distribution Company, Tehran, Iran

ID 209 Occupational Health and Safety in Soweto furniture manufacturing SMMEs in Soweto, South Africa
Lawrence Seseni and Charles Mbohwa, Department of Quality and Operations, University of Johannesburg, Johannesburg, South Africa

ID 115 Interpretation of Value in the Saudi Housing Market
Basil Omar Al-Sasi, Industrial Engineering Department, King Abdul-Aziz University, Jeddah Saudi Arabia

2:30 – 3:45 pm, TUESDAY Energy and Resource Efficiency Room 3X109
Session Chair: Ilya Shelegeda, Moscow, Russia

ID 93 Canalization Hydoturbine
Ilya Shelegeda, Moscow, Russia

ID 168 Maximization power coefficient of horizontal axis wind turbine blades (HAWT) using blade element momentum theory BEM
Y. El Khchine and M. Sriti, Engineering Sciences Laboratory, Polydisciplinary Faculty of Taza, Sidi Mohamed Ben Abdellah University, Taza, Morocco
2:30 – 3:45 pm, TUESDAY  Project Management and Knowledge Management  Room 3X114

Session Chair: Lawrance Seseni, University of Johannesburg, Johannesburg, South Africa

ID 191  Cost analysis of South African Electricity Generation Resources
Ndala Yves Mulongo and Pule Kholopane, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, PO BOX, 524, Auckland Park, 2006, South Africa

ID 192  Cost analysis of Energy Efficiency Programmes: Case Study of South African Electricity Sector
Ndala Yves Mulongo and Pule Kholopane, Department of Quality and Operations Management, Faculty of Engineering and the Built Environment, University of Johannesburg, PO BOX, 524, Auckland Park, 2006, South Africa

ID 193  The use of Total Quality Management as a business improvement initiative in Soweto furniture manufacturing SMMEs, South Africa
Lawrance Seseni and Charles Mbohwa, Department of Quality and Operations, University of Johannesburg, Johannesburg, South Africa

Knowledge Management (Special Track)

ID 214  The Perceived Characteristics of ‘Knowledgeable’ by UK MOD Procurement Function Staff
Robert A Allen and Simon Renfrey, Centre for Defence Management and Leadership, Cranfield University, United Kingdom

ID 219  Managing the tacit knowledge of business improvements strategies in South African furniture manufacturing SMMEs, Soweto
Lawrance Seseni and Charles Mbohwa, Department of Quality and Operations, University of Johannesburg, Johannesburg, South Africa

2:30 – 3:45 pm, TUESDAY  Waste Management  Room 5X115

Session Chair: Sindisiwe Chauke, Department of Quality and Operations Management, University of Johannesburg, South Africa

ID 40  Application of Hycura for municipal waste digestion recovering biogas
M. M. Manyuchi, C. Mbohwa, E. Muzenda and S. Masebinu, Bioenergy and Environment Technology Research Group Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 82  Cost Benefit Analysis of Waste in South Africa
Jemilugba Olufunto Tololope and Vuyo Mavumengwana, Dept. of Biotechnology and Food Technology, University of Johannesburg, South Africa. Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 155  Microbial Community in the Waste Management Process of Anaerobic Digestion
Jemilugba Olufunto Tololope, Department of Biotechnology and Food Technology, University of Johannesburg, South Africa. Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 161  Assessment of waste management in the South African chemical industry
Sindisiwe Chauke and Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, South Africa. Kehinde Sobiyi, Department of Mechanical Engineering Science, University of Johannesburg, Kingsway Campus, Johannesburg, South Africa

3:45 pm – 4:00 pm Networking Tea Break at Ground Floor in Atrium

4:00 – 5:15 pm, TUESDAY  Circular Economy and Computing  Room 3X105

Session Chair: Christoph Wunck, Jade University, Wilhelmshaven, Germany

ID 81  Capturing Complexity and Interdependencies in Environmental Production Networks
Sabine Baumann and Christoph Wunck, College of Management, Information, Technology, Jade University, Wilhelmshaven, Germany

ID 98  Spectrum of Circular Economy and its Prospects in Logistics
Simon Peter Nadeem, Jose Arturo Garza-Reyes and Anthony I. Anosike, Centre for Supply Chain Improvement, The University of Derby, UK. Vikas Kumar, Bristol Business School, University of the West of England, Coldharbour Ln, Bristol, UK

ID 116  Sociability as a decision model for artificial agents
Joaquín F Sánchez, Juan P Osíña, John E Gonzalez and Jorge E Ortiz, Department of Systems and Industrial Engineering, Faculty of Engineering National University of Colombia, Bogota Colombia

ID 92  BIM Implementation strategies in Higher Education Case Study Coventry University
Abdussalam Shibani, Coventry University, Coventry, United Kingdom
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<td>Energy and Resource Efficiency</td>
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<td>Hosein Daneshpour, University of Vaasa, Vaasa, Finland</td>
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<td>ID 23</td>
<td>Assessment of Residential Sector Energy Consumption: Data Envelopment Analysis (DEA) Application</td>
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<td>ID 24</td>
<td>Quantitative Impacts of Independent Research and Development, Foreign and Domestic Technology Transfer on Energy Consumption</td>
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<td>ID 27</td>
<td>Analysis of sectoral energy infrastructure projects in Finland</td>
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<td>ID 43</td>
<td>Bio methane enrichment of landfill waste biogas</td>
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<td>M. M. Manyuchi, C. Mbohwa, E. Muzenda and S. Masebinu, Bioenergy and Environment Technology Research Group, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa</td>
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<td>ID 73</td>
<td>Waste Heat and Energy Recovery System from Smelter-Off Gas for a Platinum Processing Plant</td>
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<td>Wilson R. Nyemba, Department of Mechanical Engineering Science, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park 2006, Johannesburg, South Africa</td>
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<td>Innocent Mushanguri and Simon Chinguwa, Department of Mechanical Engineering, University of Zimbabwe, Mount, Pleasant, Harare, Zimbabwe</td>
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<td>Strategic Asset Allocation Portfolio Using Elastic Asset Allocation</td>
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<td>ID 58</td>
<td>A New Approach and Modelling To Revenue Management in Supermarkets</td>
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<td>Piri Tekin and Rizvan Erol, Cukurova University, Adana, Turkey</td>
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<td>Factors for manufacturing competitiveness of automotive part suppliers from Nuevo Leon, Mexico: a literature review</td>
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<td>Luz María Valdez de la Rosa, Engineering Management Department, University of Monterrey, Nuevo Leon, Mexico</td>
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<td>Luis Alberto Villarreal Villarreal, Center for Business Development and Postgraduate, Autonomous University of Nuevo Leon, Nuevo Leon, Mexico</td>
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<td>Juan Baldemar Garza Villegas, Graduate Studies in Engineering, University of Monterrey, Nuevo Leon, Mexico</td>
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<td>Solving the Stochastic Multiple Level Warehouse Layout Problem using Simulation of Ant Colony Optimization Algorithm</td>
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<td>Human Factors and Ergonomics</td>
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<td>Chihwei Lu, Chung Yuan Christian University, Taoyuan City, Taiwan</td>
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<td>Yanwen Dong, Cluster of Science and Technology, Fukushima University, Kanayagawa No.1, Fukushima city, 960-1296 Japan</td>
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<td>The evaluation of Human Factors intervening cases of medication for Patient Safety improvement</td>
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<td>Chihwei Lu and Yan-Teng Lian, Department of Industrial System and Engineering, Chung Yuan Christian University, Taoyuan City, Taiwan</td>
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<td>ID 123</td>
<td>Ergonomic evaluation for labors in a Thin Film Transistor-Liquid Crystal Display plant</td>
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<td>Chia-Chun Yao and Chein-Wen Kuo, Graduate Institute of Occupational Safety and Heath, Kaohsiung Medical University, Kaohsiung City, Taiwan</td>
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<td>4:00 – 5:15 pm, TUESDAY</td>
<td>Inventory, Technology and Information Management</td>
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<td>Loice K Gudukeya, University of Johannesburg, South Africa</td>
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<td>The Application of Inventory Control Systems in Warehouse</td>
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<td>Phindile Ndlala and Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, South Africa</td>
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<td>Kehinde Sobiyi, Department of Mechanical Engineering Science, University of Johannesburg, Kingsway Campus, Johannesburg, South Africa</td>
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ID 220  Modelling Inventory Grouping Decisions Using Grouping Genetic Algorithms
Michael Mutungi, Faculty of Engineering, Namibia University of Science and Technology, Windhoek, Namibia and Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa
Charles Mbohwa, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

ID 80  Sustainability for the Manufacturing and Service Industries in Zimbabwe
Loice K Gudukeya, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
Paul Mativenga, School of Mechanical, Aerospace and Civil Engineering, The University of Manchester, Manchester, M13 9PL, UK

4:00 – 5:15 pm, TUESDAY  Sustainability in Supply Chains and Operations  Room 5X115

Session Chair: Sukhraj Takhar, Assent Compliance, Derby, United Kingdom

ID 47  Using BPM to improve sustainability in biomass generation
Bruno Gallotta, Centre for Supply Chain Improvement, University of Derby, Derby, UK, DE22 1GB
Vidrene Kolelas, Aston University, United Kingdom
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, UK, DE22 1GB
Anthony Anosike, Centre for Supply Chain Improvement, University of Derby, Derby, UK, DE22 1GB
Vikas Kumar, Bristol Business School, University of the West of England, Bristol, UK, BS16 1QY

ID 207  A Systematic Literature Review on Visibility in Sustainable Supply Chain Ecosystems
Apeji Uje Daniel and Funlade T. Sunmola, Manufacturing, Materials and Biomedical Engineering Dept., University of Hertfordshire, Hatfield, England
Petros Khoudian, Centre for Academic Quality Assurance, University of Hertfordshire, Hatfield, AL10 9UF England

ID 182  Examining the relationships between relationship quality, supplier dependence, supply risk, and supply chain performance: The case of Iranian manufacturing firms
Elmira Parvizi-Omrana and Saeed Najafi-Tavanib, Institute for Management and Planning Studies, Tehran, Iran

ID 34  Top Down or Bottom Up? – Supply Chain Engagement for Material Compliance Reporting
Sukhraj Takhar, Assent Compliance, Derby, United Kingdom

7:00 – 10:00 pm: Award Dinner Banquette at MShed – City Center
(Bus will be available from UWE to City Center MShed and drop off hotel locations)
Distinguished Speakers – Industry Solutions

Tuesday, July 25, 2017

11:30 am – 1:00 pm (Tuesday) – Room 3X105
Session Chair: Foad Hosseinkhanli, Amor Health Services, Inc., Brownsville, Texas, USA

11:30 – 12:00 (Tuesday)

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

Capturing Voice-of-the-Customer/Client: A systematic approach to greater customer/centricity applying Lean Six Sigma Methodology

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

12:00 – 12:30 (Tuesday)

Dr. Abdul Talib Bon
Professor of Technology Management
Department of Production and Operations Management
Faculty of Technology Management and Business
Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

Industrial Engineering Solution in the Industry – A Study on the Cycle Time of an Assembly Workstation using Application of Arena Simulation Software in a Furniture Industry

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 the 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 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 now. 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 28 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 (ITTCHO), 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. He has completed ten research grant projects 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 65 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 150 International Proceedings and International Journals and 8 books. He is also President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), 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 Forecasts (IIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).

12:30 pm – 1:00 pm (Tuesday)

OPEN
IEOM Student Chapters

IEOM Student Chapter can help students in the development or enhancement of their 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 the long term. If any student group of any educational institute is interested to form an IEOM Student Chapter, please submit the 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

Details can be found in the website: http://ieomsociety.org/ieom/chapters/

IEOM Student Chapters around Globe

1. Ahsanullah University of Sci. & Technology, Dhaka, Bangladesh
2. Akhawayn University, Morocco
3. Babylon University, Iraq
4. College of Engineering Guindy (Anna University), Chennai, India
5. Ecole Mohammedia d’Ingénieurs (EMI), Rabat, Morocco
6. Effat University, Saudi Arabi
7. Effat University, Saudi Arabi
8. Government College University Faisalabad, Pakistan
9. Guru Nanak Dev Engineering College, Ludhiana, Punjab, India
10. Guru Nanak Dev Engineering College, Ludhiana, Punjab, India
11. Islamic University of Technology (IUT), Bangladesh
12. Jessore University of Science and Technology (JUST), Bangladesh
13. Kathmandu University, Nepal
14. Khulna University of Engineering and Tech. (KUET), Bangladesh
15. Khulna University, Bangladesh
16. King Abdulaziz University, Saudi Arabia
17. Lawrence Technological University, Michigan, USA
18. Mehran University of Engineering and Tech, Jamshoro, Pakistan
19. Morrill Learning Center, San Jose, California, USA
20. National University of Science and Tech in Windhoek, Namibia
21. Pandit D Yadayal Petroleum University, Ahmedabad, Gujarat, India
22. Sultan Qaboos University, Oman
23. Tribhuvan University, Nepal
24. Universidad del Rosario, Bogota, Colombia
25. Universiti Utara Malaysia
26. University of Costa Rica
27. University of Indonesia
28. University of Johannesburg, South Africa
29. University of Peradeniya, Sri Lanka
30. Vellore Institute of Technology, India
31. Vidya Jyothi Institute of Technology, Hyderabad, India

Establish Your Institution IEOM Student Chapter

Visit IEOM Website for details: www.ieomsociety.org

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- Conferences and Seminars
- Career and Leadership Development

IEOM Professional Chapters

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One-Day Workshop was conducted on 27th August, 2016 titled “HOW SHOULD AN ENGINEERING STUDENT BE EQUIPPED WITH THE REQUIRED SKILLS FOR HIS HER FUTURE CAREER?” The workshop was graced by the faculties of the English Department and by Dr. Siddhartha Ghosh, Head of training and placements and also Head of CSE Dept. The keynote speaker of the day was Mr. Zia-ul-Haq Husamuddin, who is an incredible person equipped with skills and expertise in the field of training students for their career.

In order to acquaint student participants with the members of the chapter, a brief introduction of the IEOM Student Chapter was provided.

The winner of the Creative Writing Competition, Harsh Sharma and the other student members gave their experiences of how this chapter had helped them in knowing various perspectives. The topic for the competition was “Technical Students Problems in Developing Communication Skills and Some Possible Solutions”.

Dr. Siddhartha Ghosh, Training and Placement Officer, who is a dynamic leader and professor, utilized this platform for expressing his views on how a candidate can build his future if he/she knows the right track and is working hard to achieve goals. He also congratulated the students for their participation and thanked Dr. M. Pratibha, Faculty Advisor of IEOM Student Chapter, for organizing this workshop. He also introduced the Chief Guest and Trainer of the day, Mr. Zia-ul-Haq Husamuddin and welcomed him for further events.

Mr. Zia-ul-Haq Husamuddin, Editor, Movie Director, and Soft Skills Trainer is a person with extraordinary qualities of a leader and has expertise in the field of Soft Skills Training. He had been training students since 14 years and he also worked as a recruiter for an MNC.

Mr. Zia-ul-Haq Husamuddin began the workshop with a small speech which focused on the need of soft skills today as a student studying technical subjects. The series of training events that took under his guidance were as follows:

1. **Body Language:** He first explained how our body language leaves an impact on the recruiter when we go for an interview. The words “First Impression is the Last Impression” were aptly defined by him. Body Language is significant in effective communication. Every student was then called on the dais and asked to self-introduce themselves. He corrected the students on their weaknesses and gave his valuable feedback. Then he spoke about “eye contact” which is important to showcase one’s confidence. He also explained how we should manually grasp control and actively become more observant, because you start to understand what you project with your own body language. The relevant body languages is all about evaluating the situation and adjusting to feel natural and comfortable in it.

2. **Do’s and Don’ts during an Interview:** The next part of the training during the workshop (for an interview) was how the HR Interview takes place. Being a HR Interviewer himself, Mr. Zia-ul-Haq Husamuddin taught about the common mistakes that the applicants make during an interview which makes them nervous and leads to problems during the HR Rounds.

3. **Role Play:** The trainer then divided the students into small teams and asked them to present a Role Play which would be on a specific topic of their choice. The students actively participated in this and then he gave his feedback and correction.

Mr. Zia-ul-Haq Husamuddin ended the training with a valuable suggestion emphasizing on the importance of work and quoted a small quote from the Bhagavad-Gita on the same.

Mr. Zia-ul-Haq Husamuddin was given a token of appreciation by Dr. Pratibha, Faculty Advisor and Dr. Ghosh, T&P officer, for giving his time and advice to the workshop and students.

The workshop ended with prize distribution by the trainer to the winners of the various competitions under the IEOM Student Chapter. The workshop was conducted with active participation by the students and staff collectively.
IEOM 2016 Malaysia Conference Photos (March 8-10, 2016)

IEOM 2016 Detroit Conference Photos (September 23-25, 2016)
IEOM Morocco Conference Photos (April 11-13, 2017)

IEOM Women in Industry and Academia Forum
Website: http://ieomsociety.org/ieom/women-in-industry-and-academia/
Industrial Engineering and Operations Management (IEOM) Society recognizes educators, researchers, and professionals for the significant contribution through teaching, research and publication, service, innovation, or leadership in the field of industrial engineering and operations management. The awards presented can be found on the IEOM Society website: [http://www.ieomsociety.org/awards/](http://www.ieomsociety.org/awards/)

### IEOM Student Chapter at University of Johannesburg, South Africa

**Faculty Advisor:** Dr. Charles Mbohwa

**Chapter Officers:**
- President: Sebonkile Thaba
- Vice President: Bupe Mwanza
- Director of Administration: Tatenda Chingono
- Director of Communications: Tawanda Mushiri
- Director of Finance: Khathutshedzo Mushavanamadi
- Director of Membership: Loice Gudukeya
- Director of Programs: Takalani Nemarumane
- Director of Webmaster: Nelson Madonsela

### IEOM Student Chapter at King Abdulaziz University

**Department of Industrial Engineering**

Jeddah, Saudi Arabia

**Faculty Advisor:** Dr. Raed Rida Obaid

**Chapter Officers:**
- President: Linah Khalid Hussain
- Vice President: Rawan Hasan Baik
- Director of Administration: Walaa Othmani
- Director of Finance: Sara Yahya
- Director of Programs: Malak Mously
- Director of Webmaster and Social Media: Shahad Al Malki
- Director of Communications: Bushra Alkhaldi
- Director of Membership: Dania Memish

### Plan of Activities:

<table>
<thead>
<tr>
<th>Title</th>
<th>Activity Type</th>
<th>Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Engineering</td>
<td>Seminar</td>
<td>Dania Memish</td>
</tr>
<tr>
<td>Presentation Skills</td>
<td>Seminar</td>
<td>Walaa Othmani</td>
</tr>
<tr>
<td>P&amp;I</td>
<td>Workshop</td>
<td>Bushra Al-Khaldi</td>
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<tr>
<td>Lean 6 Sigma</td>
<td>Lecture</td>
<td>Sara Yahya</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>Plant Tour</td>
<td>Malak Mously</td>
</tr>
<tr>
<td>P&amp;G Tour</td>
<td>Communication</td>
<td>Rawan Baik</td>
</tr>
<tr>
<td>TedX Female Engineers</td>
<td>Development</td>
<td>Shahad Al Malki</td>
</tr>
<tr>
<td>Supply Chain Game</td>
<td>Workshop</td>
<td>Anan Almarzouki</td>
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<tr>
<td>Eng Day Booth</td>
<td>Membership Building</td>
<td>Tala Alromi</td>
</tr>
<tr>
<td>STEAM</td>
<td>Communication</td>
<td>Shahad Al Malki</td>
</tr>
</tbody>
</table>
IEOM Partner Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Chair</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEOM Symposium on Lean Six Sigma</td>
<td>May 13, 2016</td>
<td>Universidad del Rosario Campus</td>
<td>Sandra Milena Chacon Sanchez, Director of Logistics and Production</td>
<td><a href="http://ieomsociety.org/ieom/bogota2016/">http://ieomsociety.org/ieom/bogota2016/</a></td>
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<tr>
<td>IEOM STEM Poster Competitions for High School and Middle School Students</td>
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<td></td>
<td><a href="http://ieomsociety.org/ieom/stem/">http://ieomsociety.org/ieom/stem/</a></td>
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<tr>
<td>The IEOM Society (Industrial Engineering and Operations Management Society) is organizing the IEOM STEM Poster Competition for Middle School and High School students in the USA and globally. 2017 IEOM STEM Poster Competitions for Middle Schools and High Schools:</td>
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<tr>
<td>• IEOM STEM Poster Competition – California (San Jose – Sofia University)</td>
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<td>• IEOM STEM Poster Competition – Michigan (Southfield – Lawrence Tech)</td>
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<td>• IEOM STEM Poster Competition – Oregon (Klamath Falls – Oregon Tech)</td>
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<td>• IEOM STEM Poster Competition – West Virginia (Huntington – Marshal University)</td>
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<tr>
<td>• IEOM STEM Poster Competition – Arkansas (Jonesboro – Arkansas State University) along with the 61st Northeast Arkansas Regional Science Fair (NEARSF)</td>
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FACULTY ADVISOR:
Dr. Ilham Kissani
Engineering & Management
Science
School of Science & Engineering

IEOM Student Chapter at Ecole Mohammadia d’Ingénieurs (EMI)
Mohammed V University, Rabat, Morocco

COMMITTEE:
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Vice-Président: Hajjout Tarik
Secretary: Mehdi Mounjid
Treasurer: Adnane Miri
Director of Webmaster: Youness Jarmouni
Director of Social Media: Younes Salim
Director of Program: Lamyae Nabiih
Director of Membership: Zineb El Ghali
Director of Communication: Salma Boutarf

Faculty Advisors:
Dr. Abdelaziz Berrado
Dr. Louhna Benabbou

IEOM Society of France
www.ieomsociety.org/ieom/france/

President
Linda Zhang, Ph.D.
Professor, Operations Management
IÉSEG School of Management
Lille, France

COMMITTEE

<table>
<thead>
<tr>
<th>President</th>
<th>COMMITTEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linda Zhang, Ph.D.</td>
<td>Dr. Zied Hajej</td>
</tr>
<tr>
<td>Professor, Operations Management</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>IÉSEG School of Management</td>
<td>LGIPM-University of Lorraine</td>
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<tr>
<td>Lille, France</td>
<td>Metz Cedex</td>
</tr>
<tr>
<td></td>
<td>France</td>
</tr>
</tbody>
</table>

| | Ali Siadat (Ph.D., HDR) |
| | Professor |
| | Arts et Métiers ParisTech de METZ |
| | Metz, France |

| | Thierry COUDERT (Ph.D., HDR) |
| | Assistant Professor |
| | LGP laboratory |
| | University of Toulouse, INP-ENIT |
| | Tarbes, France |

| Élise Vareilles (Ph.D., HDR) | |
| Associate Professor | |
| ORKID Team leader | |
| CGI- Mines Albi | |
| Albi, France | |
Upcoming Events

International Congress on Industrial Engineering and Operations Management (IEOM Bogota 2017)
Marriott Bogota Hotel, October 25-26, 2017
www.ieomsociety.org/bogota2017/

Conference Chair:
Professor Sandra Milena Chacon Sanchez
Directora del Programa de Administración de Empresas
Directora programa de Administración en Logística y Producción
Universidad del Rosario, Bogota, Colombia

8th IEOM International Conference
Hilton Hotel, Bandung, Indonesia, March 6-8, 2018
Conference Website: www.ieomsociety.org/ieom2018/

2nd IEOM European Conference
Paris, France
July 26 - 27, 2018
www.ieomsociety.org/paris2018/