



Second European International Conference on Industrial Engineering and Operations Management

IESEG Paris La Defense Campus

Paris, France

JULY 26–27, 2018



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Organizer



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"Achieving and Sustaining Operational Excellence"

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Welcome to the 2018 IEOM Conference in Paris, France

To All Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to Paris, France and to **the 2nd European Conference on Industrial Engineering and Operations Management**. This unique international conference will provide a forum for academics, researchers and practitioners from many industries to exchange ideas and share recent developments in the fields of industrial engineering and operations management. It will also provide participants an opportunity to collaborate and advance the theory and practice and to network with leading scholars and practitioners in these fields. The conference received around 550 papers/abstracts submitted from 60 countries. After a thorough peer review process, approximately 400 submissions have been accepted. With the accepted submissions, the program includes many cutting-edge topics in industrial engineering and operations management. Full papers will be indexed in Scopus, subject to satisfying IEOM Quality Standards.

The challenge of continuous improvement for quality and service is significant in the 21st century. Therefore, this conference will address many issues concerning continuous improvement. Some of these issues will be addressed by our keynote speakers:

- Dr. Bart L. MacCarthy, Professor of Operations Management, Division Head – Operations Management and Information Systems, Nottingham University Business School, University of Nottingham, United Kingdom (UK)
- Dr. Yugang YU, Executive Dean, School of Management, Univ. of Sci. and Tech. of China, Hefei, Anhui, China
- Pascale Herman, Marketing Director, Valeo Thermal Systems Business Group, Paris, France
- Charles Sagna, Thermal Academy Director, Valeo Thermal Systems Business Group, Paris, France
- Dr. Frédéric MORET, Industrial Director of Faurecia, Paris, France
- Nicolas SILVESTRE, Digital Transformation Director, Faurecia, Paris, France
- Stéphane COUDURIER CURVEUR, Industrial Process Performance Excellence, Injection Senior Manager & Senior Expert, Faurecia - Interiors - Central Manufacturing, Méru, France

In view of the great success of the Global Engineering Education Series in the previous IEOM conferences, once again we will have a dedicated session on Global Engineering Education in this event. This session will feature distinguished speakers who will discuss the workforce readiness of engineering graduates around the world. Twelve featured speakers from all over the world will address engineering education challenges and opportunities. The Industry Solutions Track will address what the industry needs to survive in the competitive environment nowadays. Distinguished practitioners will share their experiences and journey. They will address industrial challenges and opportunities for continuous improvement and sustainability.

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

We would also like to thank the students who will participate in this event. The Conference Organizing Committee again welcomes you to Paris and wishes you an enjoyable learning experience at the conference. We hope you a safe and memorable adventure in exploring Paris and Europe with its many outstanding attractions and sightseeing opportunities.

Enjoy the conference!



Dr. Linda L. Zhang
Conference Co-Chair
Professor of Operations Management
IESEG School of Management
Paris La Défense, France



Ahad Ali, Ph.D.
Conference Co-Chair
Associate Professor and Director of IE Programs
Lawrence Technological University
Southfield, Michigan, USA

Conference Program

July 26, 2018 (Thursday)

08:00 – 17:00 Registration

08:00 – 09:30 Parallel Sessions

09:30 – 09:40 **Welcome Address:** **Dr. Jean-Philippe Ammeux**, Dean of IÉSEG School of Management, Lille, France

09:40 – 10:20 **Opening Keynote I:** **Dr. Bart L. MacCarthy**, Professor of Operations Management, Division Head – Operations Management and Information Systems, Nottingham University Business School, **University of Nottingham**, UK

10:20 – 11:00 **Opening Keynote II:** **Dr. Yugang YU**, Executive Dean, School of Management, **University of Science and Technology of China (USTC)**, Hefei, Anhui, China

11:00 – 11:30 Networking Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:30 **Lunch Break** (Lunch Provided)

14:30 – 16:00 Parallel Sessions

16:00 – 16:30 Networking Break

16:30 – 18:00 Parallel Sessions

18:00 – 19:30 Poster Session

July 27, 2018 (Friday)

08:00 – 17:00 Registration

08:00 – 09:30 Parallel Sessions

09:30 – 10:15 **Keynote III:**

Pascale Herman, Thermal Business Marketing Director, **Valeo**, Paris, France

Charles Sagna, THS Academy Director, **Valeo** Thermal Systems Business Group, Paris, France

New Solutions for Car Interior Comfort, a Revolution in Health & Well-being, New Development Methods User Centric

10:15 - 11:00 **Keynote IV:**

Frédéric MORET, Industrial Director of Faurecia, Paris, France

Nicolas SILVESTRE, Digital Transformation Director of Faurecia

Stéphane COUDURIER, Industrial Performance Excellence Manager, Faurecia

Digital Transformation of an Automotive Tier-1 Production System

11:00 – 11:30 Networking Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:30 **Lunch Break** (Lunch Provided)

14:30 – 16:00 Parallel Sessions

16:00 – 16:30 Break

16:30 – 18:00 Parallel Sessions

19:00 – 22:00 **CONFERENCE AWARD DINNER** – Renaissance Paris La Defense Hotel

Keynote Speakers

9:30 am (Thursday, July 26) – Welcome Address



Dr. Jean-Philippe Ammeux

Dean
IÉSEG School of Management
Lille, France

Dr Jean-Philippe Ammeux is a graduate from the renowned French University « Paris I Pantheon-Sorbonne » in Paris. He has a PhD in Economics and International Finance and, since 1979, has taught international economics, macroeconomics and political economics in several institutions based in France and internationally.

In 1994, Jean-Philippe Ammeux has been appointed General Director of IÉSEG School of Management, a leading business school founded in 1964 in the city of Lille, in France. Under his direction, the School has achieved the ranking of a top 10 French business school as well as the prestigious accolade of becoming a Grande Ecole, one of the most respected and academically rigorous types of higher education institution in the world. In 2009, the School also opened a second campus at Paris - La Défense, Europe's biggest business hub. IÉSEG is also part of the elite group of business schools that have received the triple crown of international accreditations: AACSB, EQUIS and AMBA.

For Jean-Philippe Ammeux, the IÉSEG culture is born out of a passion for progress and ability meaning that energy is focused on identifying the true potential of each student. IÉSEG is proud of its approach to business education and its ability to instill the key values of accomplishment, responsibility, integrity, solidarity and engagement (ARISE).

From 2010-2017, Dr Jean-Philippe Ammeux was the President of the FESIC an association that gathers and promotes 25 schools and 57 campus in France and abroad. During this period, one of his main achievements has been to help define the legal framework for the new "EESPIG" label in France (Private higher education institutions with a public interest).

9:40 am (Thursday, July 26) – Opening Keynote I



Bart L. MacCarthy, BA, PhD, FIMA, FIOM, FIET

Professor of Operations Management
Division Head – Operations Management and Information Systems
Nottingham University Business School
University of Nottingham
United Kingdom (UK)

Bart is Professor of Operations Management in the Business School at the University of Nottingham since 2003 and is Head of the Operations Management and Information Systems Division (OMIS). He gained his PhD at the University of Bradford, followed by postdoctoral work in the Mathematics Institute at Oxford University. He teaches at Executive, MBA, and Masters levels in operations, supply chain, and project management. He developed Nottingham's Executive Masters programme in Global Supply Chain Management with Rolls-Royce. His research spans the analysis, modelling and management of operational systems in a wide range of sectors combining both qualitative and quantitative methodologies. He is particularly interested in research studies that combine the analysis of practice with modelling. He has gained very significant external research funding over his career from the UK research councils, the European Union and industry. He has led major research projects on effective decision support in planning and scheduling, order fulfilment modelling, Mass Customization, and international supply chain management. Recently he was the Principal Investigator at Nottingham on the large EPSRC-funded multi-University grant examining new perspectives on modelling robustness and resilience in international supply networks and is currently a co-investigator on the EPSRC funded project on Cloud Manufacturing, jointly with the Faculty of Engineering. Current research interests include supply chain evolution, the impact of digitisation and distributed cloud technologies on the supply chain, and decision models for multi- and omni-channel retail fulfilment.

Bart has published widely in the Operations, Supply Chain, and Management Science literatures and has delivered a number of keynote addresses on operations and supply chain topics. He is European Editor for the International Journal of Production Economics and serves on the editorial board of a number of other academic journals including being a consulting Editor for the International Journal of Operations and Production Management. He has researched and consulted with a range of companies in automotive, aerospace, engineering, textiles and clothing, consumer products, food and logistics sectors. He is a Fellow of the Institute of Mathematics and its Applications, the Institution of Engineering and Technology, and the Institute of Operations Management. He was President of the European Chapter of the Decision Sciences Institute (EDSI) from July 2011 until June 2012 and serves on DSI's Strategic Planning for International Affairs Committee. He is a board member of the International Foundation for Production Research (IFPR).

Presentation Title – **Omni-Channel Retailing- Opportunities and Challenges for OM and OR**

Today's retail customers want to be able to access information and make purchase decisions in whatever way and on whatever device they wish. They also want to receive their orders whenever, wherever, and however they wish. Retailers are therefore under pressure to offer multiple retail channels and multiple fulfilment modes in order to satisfy very different customer journeys. This 'Omni-Channel' retailing changes the nature and granularity of order fulfilment fundamentally for the retailer from the conventional way of satisfying all customers from a network of bricks-and-mortar stores. Omni-Channel channel retailing is an area that is practice-led. Retailers are experimenting, trialling, and implementing different solutions and systems, not always successfully. We first discuss different types of, and definitions for multi-channel retailing. We then provide a conceptual map for Omni-Channel order fulfilment decisions at strategic, operational, and tactical levels. Opportunities for both empirical OM research and

modelling research are highlighted. We then consider models for one of the most popular modes of Omni-Channel fulfilment – ‘Buy-online-pickup-in-store’ (BOPS).

10:20 am (Thursday, July 26) - Opening Keynote II



Dr. Yugang YU
Executive Dean
School of Management
University of Science and Technology of China (USTC)
Hefei, Anhui, China

Yugang Yu is Executive Dean and Yangtze Scholar Distinguished Professor of Logistics and Operations Management at the University of Science and Technology of China, PR China (USTC). He obtained his PhD in Management Science and Engineering from the School of Management, USTC in 2003. His current research interests are in warehousing, supply chain management and business analytics, and business optimization. He has published more than 60 papers in academic journals, including *Productions and Operations Management*, *Transportation Science*, *IIE Transactions*, *International Journal of Production Research*, *European Journal of Operational Research*, *Annals of Operations Research*, *IEEE Transactions on Automation Science and Engineering*, and *International Journal of Production Economics*. His papers have been cited more than 1500 times, and Elsevier ranked him as one of “the most cited researchers in the Mainland of China” in 2014, 2015, 2016 and 2017, respectively. His research results have also been patented several times in China. He received a career development VENI project from the Netherlands Organization for Scientific Research (NWO), a distinguished research scholar grant from the National Science Foundation of China (NSFC), Yangtze Scholar Distinguished Professorship from China Ministry of Education, and the first prize of natural science from China Ministry of Education.

Presentation Title – *Business Analytics in China*

Nowadays, many Chinese companies have already accumulated abundant data resources and are seeking ways to improve their management by taking advantage of their data. In this talk, we present several instances of business analytics based on our research projects with Chinese companies. In each instance, we show the process of solving data driven problems in Chinese logistics and supply chain management, which basically includes three stages—causality analysis, prediction analysis, and optimization analysis. In particular, we find that classical methodology (like, regressions) works well in causality analysis, however, has limitation in prediction analysis; some advanced methodology (like, machine learning) exhibits good performance in prediction analysis, however, generates new challenges in the optimization analysis. Our research contributes to proposing several ideas and methodologies to analyze data, formulate data driven problems, and optimize data driven problems. At the end of this talk, we would like to introduce some innovative practices of Chinese companies and conclude several potential research directions of business analytics in China.

July 27, 2018 (Friday)

9:30 am (Friday, July 27) – Keynote III



Pascale Herman
Marketing Director
Valeo Thermal Systems Business Group
Paris, France

Pascale Herman started at Valeo 25 years ago as young engineer. Since then she gravitated all levels to reach her current Executive Marketing Director at Valeo within the Thermal Systems Business Group. She has an in depth understanding of the industry constructed over years of experience in laboratories, project, product line, marketing, and business unit management. Within this career path, she could consolidate her experience in Strategy, Marketing, Innovation and Business development in the fields of automotive, thermal systems, batteries and electric vehicles, user experience. With passion, leadership and out of the box thinking, she is managing

teams on a global basis to grow and succeed in the preparation of the future.



Charles Sagna
Thermal Academy Director
Valeo Thermal Systems Business Group
Paris, France

Charles Sagna started at Valeo 25 years ago at Valeo Service as Marketing Manager, after post-graduation at Paris 3 University in international business negotiation. He stayed 17 years in the dedicated organization to the Aftermarket, where he could consolidate his experience in executive positions such as Marketing Director and Sales Director. In 2011, he joined the industrial part of Valeo, at Valeo Thermal Systems as Product Marketing Director for the Powertrain Thermal Product Group. In this position, the main task was to understand the

market, define strategies in order to drive R&D product developments to the most lucrative market opportunities. Part of the job was also to promote innovations and technologies at OEMs, as well as within organizations such as the PACE Awards of Automotive News International. Since 2011 Valeo Thermal Systems has received 3 PACE Awards on Air Intake Module, Water Condenser and this year R-744 AC Loop where he met Donald

Reimer. Since September 2017, Charles Sagna is Director of the Thermal Academy in charge of managing, organizing and capitalizing knowledge within the Thermal Business Group.

Presentation Title – ***New Solutions for Car Interior Comfort, a Revolution in Health & Well-being, New Development Methods User Centric***

As an innovative company Valeo is right in the middle of three technological and social revolutions that are shaping our industry electrification, autonomous vehicles, and digital mobility. As far as thermal systems are concerned, these revolutions lead us to think differently the interior of the car from a comfort and health stand point. Moreover, this triggers a different approach of our development methods setting users' experience at the heart of our methodologies.

10:15 am (Friday July 27) - Keynote IV



Dr. Frédéric MORET
Industrial Director of Faurecia
Paris, France

Frédéric Moret, Mines Eng. Dipl. 1982, Physics PhD 1987, Eng. of the Year Award 1996, INSEAD 2006

After having managed industrial research, engineering and production teams and departments in aerospace and energy industries up to 2000, Frédéric led the industrial recovery and international development of Lighting division of Valeo, 16 B€ sales global automotive tier-1. Since 2011, he is leading the worldwide industrial and digital transformation of the Interior Business Group of Faurecia, 18 B€ sales global automotive tier-1. Faurecia Interior employs 25,000 p worldwide in 85 factories. As world leader, Faurecia Interior develop the full range of technologies

from plastic injection to advanced HMI solutions for car cockpits.

Nicolas SILVESTRE
Digital Transformation Director
Faurecia
Paris, France



Stéphane COUDURIER CURVEUR
Industrial Process Performance Excellence
Injection Senior Manager & Senior Expert
Faurecia - Interiors - Central Manufacturing
Méru, France

After graduating as a Polymer Processing Engineer, Stéphane COUDURIER CURVEUR has equally split his 25 years career between Manufacturing & Engineering, in Operational or Central Functions. First in a UK based plant, Managing Process development & Production, as a Toyota supplier, where he developed his hands on & lean approach of Technology Efficiency. Then as the Manager of Faurecia Worldwide team of Injection Process/Tool

Engineers & Experts, based in China, to establish from this important country supplier of tools, the Excellence level expected by Faurecia. After a brief return back to the floor to recover efficiency of Faurecia Mexican Injection Operation, he is now in charge of leading the full Injection Operation of Faurecia to Excellence & beyond. 800 machines in 51 plants Worldwide, developing a collaborative network between entities to boost knowledge & efficiency, engaged in digital transformation & using successfully Big Data to improve performance & go beyond Excellence.

Presentation Title – ***Digital Transformation of an Automotive Tier-1 Production System***

DISTINGUISHED SPEAKERS – Global Engineering Education

Thursday (July 26, 2018)

Session I: Global Engineering Education

8:00 – 9:30 am (Thursday) - Room B15

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

8:00 – 8:30 (Thursday)



Dr. Christoph Wunck

Professor, Business Information Systems, Industrial Engineering
Jade University, Wilhelmshaven, Germany
OFFIS Institute for Information Technology, Oldenburg, Germany
Department of Computer Science, Iowa State University, Ames, USA

IT Skills Development for Graduate Students in Industrial Engineering

Prof. Dr. Christoph Wunck holds a full professorship for Business Information Systems at Jade University since 1999. He teaches courses on Distributed Applications, Software Engineering, Programming, Electronic Business Systems and Process Management. He holds a doctoral degree from the faculty of Mechanical Engineering and a Master's degree (Diplom-Ingenieur) in Electrical Engineering, both from RWTH Aachen University. Dr. Wunck is a scientific director at OFFIS Institute for Information Technology in Oldenburg, Germany. He has been appointed Affiliate Professor of Computer Science at Iowa State University in Ames, Iowa, USA. His professional experience covers project management and consulting services for a major European business consultancy and work as a consulting engineer for manufacturing and electronics industries. He has served Jade University for nine years in the position of Dean and Dean of Studies.

His research interest include:

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

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

8:30 – 9:00 (Thursday)



Dr. Özlem Şenvar

Associate Professor, Department of Industrial Engineering
Faculty of Engineering
Marmara University
Istanbul, Turkey

Sustainability assessments in energy management AND/OR Life cycle assessment and life cycle impact assessments

Dr. Ozlem Senvar is an Associate Professor in Department of Industrial Engineering at Marmara University. She was officially granted (Ref. 2013/ 327-350) by European Commission and worked as post doctorant in Laboratoire 'Optimisation des Systemes Industriels (LOSI), Institut Charles Delaunay (ICD), Université de Technologie de Troyes in France. She holds PhD degree in Industrial Engineering, M.Sc. degree in Quality Engineering and BSc degree in Statistics and Computer Sciences. She has been author of international peer reviewed journal articles, book chapters, and conference papers

9:00 – 9:30 (Tuesday)



Mohammad Abdullah Shaikh

Deakin University
Victoria, Australia

Mohammad Abdullah Shaikh is a PhD candidate in Faculty of Science, Engineering and Built Environment at Deakin University Melbourne. His area of research is modelling and integration of sustainable systems under human change. He has done his Masters Degree from Istanbul Sehir University (City University of Istanbul) in Industrial and Systems Engineering. As part of his master's thesis, he developed a framework to calculate Energy-Water nexus of Electricity generation in Turkey and used statistical model to predict the water usage due to energy consumption till 2030. He has also worked on Supply Chain Operations Reference (SCOR) Model during his undergrad degree. He hold a bachelor's degree in Industrial and Manufacturing Engineering. Mr. Shaikh has a industrial exposure of working in Automotive sector in Pakistan for two years. He has been involved in various

optimization and line balancing projects. His interests manoeuvre over topics related to Sustainability, Optimization, Scenario Analysis, Integrated Modelling, Supply Chain Management, and Optimization.

Session II: Global Engineering Education

11:30 am – 1:00 pm (Thursday) - Room B15

Session Chair: Dr. Matteo Mario Savino, University of Sannio, Benevento, Italy

11:30 – 12:00 (Thursday)

**Dr. Matteo Mario Savino**

Professor

University of Sannio
Benevento, Italy

Matteo Mario Savino got his Ph.D. Industrial Operations at University of Naples, Italy. Actually he is Professor of Industrial Operations and Production Systems at University of Sannio, Benevento. He is the head of the Centre on Production, Reliability and Industrial Management Engineering. He manages national industry-based and EU funded projects on Operations Management. He has been Guest Editor of Special Issues on International Journal of Product Lifecycle Management, Journal of Operations and Quantitative Management and he is IJOQM Europe

Editor. Actually Prof. Savino is in the Editorial Board of several peer reviewed international journal. He manages several research project funded and co-funded by European Commission and he is also in the National Quality Evaluators Panel for Universities and Research Centres. His main research interests are related to quantitative approaches for Quality and Environmental Management, Production and Supply Chain Management. His research works appeared on several peer-reviewed International Journals.

12:00 – 12:30 (Thursday)

**Prof Khumbulani Mpofu**

Gibela Research Chair in Manufacturing and Skills Development

Professor – Industrial Engineering Department

Tshwane University of Technology (TUT)

Pretoria, South Africa

Prof Khumbulani Mpofu is Gibela chair in manufacturing and skills development. He is an NRF rated researcher with unbridled passion for Industrial Engineering. Prof Mpofu's research career began in 2004 at the completion of a five year qualification with a design project that he carried out for his Bachelor of Engineering Honours degree in Industrial and Manufacturing Engineering. This project had both design elements and also an exploratory research aspects. In 2005, he received an offer to be a lecturer in a Bachelor of Technology programme, where he was responsible for computer related courses. He then enrolled for a postgraduate course which had a 50% research component.

During his Master's studies he gained keen interest on the computer aspects of the manufacturing industry. He was also involved in a Cleaner Production project at the manufacturing site of an airport component production and maintenance unit. He also pursued a research project in 2006, focusing on small to medium enterprise wood manufacturing companies and how they can reduce their environmental impact by collating their efforts with a clustering approach. Prof Mpofu enrolled for a Doctor of Technology in Mechanical Engineering at TUT in 2007, where he designed a Knowledge Based System for Reconfigurable Manufacturing. Between 2004 and 2011, Prof Mpofu was exposed to a range of other manufacturing challenges in; for example, manufacturing maintenance, importance of environmental conscious manufacturing, the advanced manufacturing technologies, from the mechanical, and control design to information system application in manufacturing.

Prof Mpofu has reviewed papers for various conferences including the CIRP Conference on Manufacturing Systems, CIRP Global Conference on Sustainable Manufacturing, Flexible Automation and Intelligent Manufacturing conference, Southern African Institute of Industrial Engineers Conference, Zimbabwe Institute of Engineers, International Conference on Appropriate Technology, Symposium on Mechatronics and Robotics, Botswana Institute of Engineers Conference, Conference on Mechatronics and Machine Vision, Hybrid and Intelligent Systems and the International Federation on Automatic Conference, CIRP Global Conference on Manufacturing. In 2008, he chaired the much acclaimed session at the International Conference on CAD/CAM and Robotics and Factories of the Future, he also participated in the CIRP General Assembly local organising committee in 2015 held in Cape Town, South Africa. He also serves on the CIRP Global Conference on Sustainable Manufacturing.

He has also reviewed numerous journals such as the Taylor and Francis Journal of Production Research, Elsevier Journal of Manufacturing Systems, the Emerald Design and Technology Journal, Engineering Optimization and the Proceedings of the Zimbabwe Institute of Engineers Journal. Currently, the Head of Department for the Industrial Engineering department, Prof Mpofu represented his faculty at the Research and Ethics Committee for a three year term and he spearheads the Innovative Design and Manufacturing research unit under the New Materials and Advanced Manufacturing niche area.

In addition to his many accolades, Prof Mpofu has received excellence awards at the institutional level as well as at the national level being one of the finalists in the DST awards for emerging researcher 2015. To date (2016), he has attracted in excess of R30 million corporately and individually for research activities. He has collaborators locally and internationally in France, Germany, Slovenia, Sweden, Slovenia, China and the United States of America. Until 2016, he had over 70 publications in conferences, journals and book chapters. Graduated two doctoral students and twelve masters students. Through his efforts and his team he, has registered 3 patents to date, which are at various stages for development for commercialisation.

Prof Mpofu's field of expertise and research specialisation is Industrial Engineering with the focus on:

- Advanced manufacturing technologies
- Knowledge based systems
- Robotics applications in Manufacturing

Skills development is a challenge in the South African landscape, further skills in science, technology, engineering and mathematics is a global problem. This chair will seek to be a catalyst in revitalising the rail commuter coach manufacturing focusing on engineering and the related sectors to propel rail as a preferred commuter transport mode. Technical skills, running of technical business and development of localised technologies will bring about a revamp of the contribution of manufacturing sector to the GDP and also result in sustainable employment and black owned Small, Micro & Medium Enterprise development.

12:30 – 1:00 (Thursday)



Dra. Ma. Ángeles Gómez Gavito

Directora Lean Advancement Initiative - México y Centro Lean Enterprise
Senior Lean Six Sigma Consultant & Black Belt
Dirección General de Internacionalización
Universidad Popular Autónoma del Estado de Puebla AC.
Piso, Barrio de Santiago, Puebla, Pue.
Mexico

Dra. Gavito has 29 years of professional experience and 26 years of academic experience. She has been consultant in Lean Six Sigma projects in worldwide industries like Volkswagen Mexico, Benteler Automotive, Rassini Breaks, Mead Johnson Nutrition, Gestamp Automotive, Volkswagen Bank, Bayer Pharmaceutical, Audi Mexico, Kayser Automotive, PWO Automotive, Schlemmer Automotive, Truck & Wheel, Clerprem Mexico, Flex&Gate, among

others. Her interests are consolidate a cluster of organizations grouped by industry sectors that actively participates in a learning and collaborative network around the Lean Enterprise Philosophy, achieve considerable gains in their quality, costs and delivery indicators, creating value for all stakeholders. Foster competitiveness in manufacturing, service and government organizations, through the adoption and development of Lean Enterprise management tools and methodologies in their enterprise processes, thus increasing flexibility towards changes in the environment, improving their ability of innovation and continuous improvement, and creating a new business culture focused on value creation and a permanent pursuit of excellence. Dra. Gavito has been speaker in several congresses in Mexico, USA, Spain, Singapore, and Argentina. She has completed Doctor in Business Administration from Swiss Management Center University, Zug, Suiza and Master in Theory of Design, Universidad de las Américas Puebla, Mexico.

Session III: Global Engineering Education

2:30 – 4:00 pm (Thursday) - Room B15

Session Chair: Dr. Fabio Fruggiero, University of Basilicata – Italy

2:30 – 3:00 (Thursday)



Dr. Fabio Fruggiero

Assistant Professor in Industrial Systems Engineering
School of Engineering
University of Basilicata – Italy

Human Factor, Safety and Sustainability in the Industry 4.0 Era

FABIO FRUGGIERO graduated in Mechanical Engineering at the University of Salerno with a dissertation about newly formed meta-heuristics for the industrial scheduling optimisation, 2004. His dissertation was for published work in the field of industrial optimization at the ICPR18 conference. He conducted his PhD in Mechanical Engineering at the University of Salerno - Italy with a dissertation about Digital Factory Application from Manufacturing to Service Environment, 2008. Formerly, in 2008, He was post PhD student at the Mechanical Engineering Department of the University of Salerno with main topic of research: Operations Management Strategies for HealthCare optimisation.

Currently, he is Assistant Professor, and responsible of the area and lab, in Industrial Systems Engineering at the School of Engineering – Mechanical Engineering Area - of the University of Basilicata- Italy. He runs courses for both Industrial System Engineering and Operations Management. He works as referee for different International Journals (e.g., IJSOI, IJAMT, IJPR, CPPB, EIS, TPMR, TSMSI, IJEBM, UHSE, Cogent OA etc ...) and the national minister of research. Track Chair for Human Factor and Ergonomics in IEOM - Industrial Engineering and Operations Management Society - conferences. He is editor Of Cogent Engineering Journal and Industrial and Systems Engineering. Fabio has been engaged in the auto sector for both Human Factor analysis and Ergonomic research, scheduling optimization, production management. He has collaboration with firms of the production and service sector applying the results of his work to help multinational companies and SMEs to generate safety and Optimize services and profits.

He is acting as consultant to several major companies and patent initiatives (FCA, CRF, PintoTecno Srl, Metecno, Gallotta produzioni, M.I.p. Srl) . He is active in initiative for knowledge transfer to industry. He has been conducting research with Ryerson University - Canada; Cardiff School of Engineering - UK; Manchester University – UK; Cork Institute of Technology – IR; Universidad Politecnica de Madrid- Spain (performing lectures and research initiatives); University Of Technology of Troyes - France. His research's activity encompassed the area of: Human Factor and Corporate Strategy; Industrial System Design Processes; Additive Manufacturing and Advanced Manufacturing; Simulation and Virtual modelling; Agent Based Modelling; Assembly Line Balancing; HealthCare Management and Clinical Risk Assessment; Scheduling and Optimisation; Safety and Risk analysis.

AWARDS and PRIZES: Winner: Best Practices for Innovation in 2001 – Industrial Requalification. Winner: Best Research award, ICMR07 - 5th International Conference on Manufacturing Research incorporating the 23rd National Conference on Manufacturing Research conference in Leicester, United Kingdom – 2007.

3:00 – 3:30 (Thursday)



Dr. Ilham Kissani
Assistant Professor of Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

Dr. Ilham Kissani is an assistant professor in the field of engineering management for the School of Science and Engineering at Al Akhawayn University in Ifrane, Morocco. She has served as the main advisor and lead instructor for the undergraduate and MS programs in Engineering and Management Systems since 2010. She has helped create very close ties with the AUI School of Business Administration, which allows both schools to leverage our resources and deliver a greater diversity of courses to students, such as supply chain management and operations management. Her background is diverse and includes industrial experience as well as academic. Her degrees are from INSEA, Morocco (Engineer) and Université Laval, Canada (Master and Ph.D). She has worked with Royal Dutch Shell as a project manager and with Modellium Québec, where she consulted in logistics and supply chain issues. Additionally, Dr. Kissani contributes in research in supply chain management, planning, and operations research. She is a member of ASEM, IEEE, IEOM, IIE, INFORMS.

3:30 – 4:00 (Thursday)



Dr. Funlade Sunmola, BEng (Hons), MSc, MA, PhD
Senior Lecturer in Manufacturing and Enterprise Engineering
Manufacturing, Material and Biomedical Group
School of Engineering and Technology
University of Hertfordshire
United Kingdom

Funlade is a Senior Lecturer in Manufacturing and Enterprise Engineering, a member of the Manufacturing, Material and Biomedical group of the School of Engineering and Technology, University of Hertfordshire. He earned his first degree BEng (Hons) in Civil Engineering at the Ahmadu Bello University Zaria. He obtained Masters Degrees (MSc) in Industrial Engineering from the University of Ibadan and MA in Accounting and Finance from Birmingham City University. He studied Manufacturing Engineering (MPhil) at the University of Birmingham and earned his PhD in Computer Science (Artificial Intelligence and Robotics) also from the University of Birmingham.

Funlade has several years of professional industrial and academic experience in higher education teaching and learning, consultancy and management having worked in a variety of sectors including construction, manufacturing, software development houses, and the National Health Service (NHS) UK. His current research interests lie in manufacturing, engineering informatics, enterprise systems, processes and operations. He has been involved with various research projects in a diverse range of contexts, e.g. electronic monitoring systems, products, manufacturing and operations intelligence, benchmarking of manufacturing and service operations; business process improvements and service transformations; SC21 – Supply chains of the twenty-first century; sequential decision making and optimised learning, and various performance modelling studies. He is especially interested in advances related to industry 4.0, the applications of advanced computing, information and communication technologies. He has published academic papers, and acted as referee, in the subject area. Funlade is a Prince2 Registered Practitioner - certified project manager.

Session VI: Global Engineering Education

4:30 – 6:00 pm (Thursday) - Room B15

Session Chair: Dr. Balan Sundarakani, University of Wollongong, Dubai, UAE

4:30 – 5:00 (Thursday)



Carmen Pasca
Liberal Arts Department
College of Engineering and Technology
American University of the Middle East - AUM
Egaila, Kuwait

Carmen Pasca holds a PhD in Sociology from University Victor Segalen Bordeaux 2- France and has degrees in philosophy, history and sociology (Research-Master from EHESS- Paris). Her research interests and activities focused on Social Choice, Risk, and Decision making Theories and the Acceptability of Fairness and Responsibility axioms. Recently she has conducted experiments to elicit social preferences over income compensation schemes. With John D Hey and John Bone of York University they have been awarded a grant from the University of York to

carry out a series of experiments into the impact of responsibility, effort and luck on distributional judgments. We (John Bone, John D. Hey and myself) are just about to embark on a new set of experiments adding a third dimension into the impact of responsibility, effort and luck on social judgements. Her papers include: (1) "Inferring Social Preferences Over Income Distributions through Axioms"; (2) "On choosing a Constitution (at least the part relating to the distribution of income)"; (3) "Are Revealed Intentions Possible?". She is currently working on a new experiment designed to discover, inter alia, people's trade-offs between mean income and income inequality.



Suat Kasap
 Industrial Engineering Department
 College of Engineering and Technology
 American University of the Middle East - AUM
 Egaila, Kuwait

Suat Kasap has degrees in electrical-electronics engineering and industrial engineering. He received his Ph.D. in Industrial Engineering from the University of Oklahoma. His research interests are in human factors and ergonomics, occupational safety and health, work and process analysis, technology and innovation management, multi-criteria decision making, financial engineering, data mining, and modeling, analysis, and optimization of complex engineering problems. He has published in Journal of Global Optimization, Simulation, and International Journal of Applied Logistics, Topics in Health Information Management, Journal of History Culture and Art

Research. He also authored five book chapters in Green Finance and Sustainability: Environmentally – Aware Business Models and Technologies, Development and Implementation of RFID Technology, Handbook of Applied Optimization, Encyclopedia of Optimization, Volume IV, Handbook of Combinatorial Optimization. He worked in four different Industrial Engineering Departments of the American University of Middle East, University of Turkish Aeronautics Association, Hacettepe University, and Çankaya University as an assistant professor. He has taught courses on Work Analysis and Design, Ergonomic Work Analysis, Cognitive Ergonomics Work Analysis, Technology and Innovation Management, Management of Information Systems, Introduction to Optimization and Modeling, Deterministic Models of Operation Research, Project Management, Multi-criteria Decision Making.

Presentation Title: Thinking Ethics Differently: Challenges and Opportunities for Engineering Education

Abstract: The debate in social sciences in 21st century points out the importance of interdisciplinary approaches and the necessity of a paradigm shift. The turmoil caused by the recent transformations of the world questions the well-established analytical categories of humanities and social sciences. These old categories become an obstacle to the understanding of the contemporary society. In this world on move, the constant changing cultural values affect and shape practices and behaviors. Fashioned by the domination of sciences, technologies, and power, the expectations of social actors are not taken into account. In this context, the ethical awareness is progressively increased. Ethics is becoming a pivotal component of today's society. The profound rupture between actors and systems entails the emergence of new ethical conscience and ethics. At an individual level, the new ethical values enable the actors to resist better against systems through choices, decisions and accountability. The recent industrial paradigm challenges the evolution of professional ethics in engineering and its relationship with engineers as social actors. Perceived as a social and cultural construct, ethics, according to sociologists, prepare engineers via education to face and cope with societal and professional changes. Thus, ethics contributes in shaping the new identity of engineers. In practice, how can engineers reconcile the universality of ethical principles with the particularism of the engineers as individuals, the organizational constraints of the company, and the societal expectations? Is an ethical global education for engineers the appropriate response to address the challenges of the new ethics of responsibility?

5:00 – 5:30 (Thursday)



Dr. Balan Sundarakani, B.Eng, M.Eng.
 Associate Professor, Supply Chain Management
 Discipline Leader, MSc Logistics
 Faculty of Business & Management
 University of Wollongong
 Dubai, UAE

Big Data Driven Supply Chain Analytics

Dr. Balan Sundarakani is an Associate Professor and Discipline Leader for the Master of Science in Logistics program in the Faculty of Business at the University of Wollongong in Dubai (UOWD). Previously he was working as an Assistant Professor at UOWD. He has 12 years of teaching and research experience in the area of Supply Chain Management across the various universities including the National Institute of Technology (NIT), Tiruchirappalli, Indian Institute of Technology (IIT), Roorkee, Hindustan University, Chennai and the National University of Singapore (NUS), Singapore and the Chair of Logistics Management in Swiss Federal Institute of Technology (ETH), Zurich, Switzerland.

He earned a B.Engg (Distinction) in Mechanical Engineering from M.S University and an M.Engg (High Distinction) in Industrial Engineering from the National Institute of Technology-Tiruchirappalli, a PhD in Supply Chain Management from the Indian Institute of Technology-Roorkee, India and a Post-Doctoral Research Fellowship from the Logistics Institute Asia Pacific, NUS Singapore. He has completed research and consultancy projects for the UOW Dubai, EDB Singapore, IBM, DHL, Ministry of Defence Singapore, Dubai Trade, JAFZA, and RTA Dubai. The cumulative value of his research and consulting projects in Singapore was around \$2 Million. Since joining UOWD, he has received five university funded research grants totaling AED 60,000.

Dr Sundarakani has published 92 research papers in the form of Refereed Journals: 28, Refereed Conferences: 37, Book Chapters: 12, Book: 1, Periodicals: 7, Industry Reports: 4, Case Study: 1 and Book Review: 2. His research outcomes have appeared in international Journals such as International Journal of Production Economics, International Journal of Technology Management, Computers In Industry, Journal of Advances in Management Research, International Journal of Logistics Systems Management, etc. and which are received many citations worldwide. He serves as a supervisor for a number of PhD/DBA candidates, examined six PhD theses and currently serving as a member of the PhD examination panels of three different Universities.

He has won "Research Excellence Award" on two occasions for his research performance at UOWD in 2010 & 2012, received the 'Highly commended' Teaching Excellence Award from UOWD in 2015, the 'Best paper Award' from IEOM, Bali, Indonesia in 2014, the RTA Appreciation (2012) from the Government of Dubai for sustainable transport strategies, Best Educator Award (2010) from ITP Middle East, 'Gold medal for Best

Case Study' from IIIE in 2010 and, the prestigious A*Star Fellowship (2006) Singapore, MHRD Fellowship (2003) India, University Rank (2000) and College First Rank (1997-2000) India.

Dr. Sundarakani has previously served with the editorial board of Journal of Advances in Management Research, Emerald and also with the International Journal of Agile Systems and Management, Inderscience. He also serves as a regular reviewer for the EJOR, IJPR, IJPE, JAMR and SCM Journals. He is a member of the AIB (USA), ORSI (India), POMS (USA), EuROMA (UK) and INFORMS (USA). Currently he is on the "Supply Chain Asia's" Executive Committee member in Singapore and the Executive Board member for SCLG Middle East in Dubai.

Dr Sundarakani is teaching students on both undergraduate and postgraduate level. He has been very successful in teaching the quantitative and modelling subjects with deep critical analysis and high level of academic engagement using relevant logistics industry cases and live demonstrations. The student's evaluation of his teaching has been consistently very high and many students have admired his style of teaching in their feedback form. He was awarded 'Highly commended' Teaching Excellence Award from UOWD in 2015, nominee of (UOW Australia) Vice-Chancellors Award for Continuous Contribution to Teaching and Learning in 2016.

5:30 – 6:00 (Thursday)



Edly F. Ramly
Certification Director
EFR Certification
Johor, Malaysia

Edly F. Ramly is a Certification Director for EFR Certification. He is renowned coach, auditor, consultant and trainer. With his excellent technical expert and interpersonal skills, he has conducted various high impact trainings and workshop in the area of operation management, industrial engineering, management system including quality, environment and occupational health and safety, workplace improvement, variation and waste reduction, and practical problem solving techniques including statistical tools. Apart from being trained as Lead Auditor in various management system, he is also qualified auditor for Automotive Industry ISO/TS 16949. During his service with Pera Neville Clarke, he is also tutor for QMS lead auditor course. His industrial experience was in the automotive industry. During his stayed with the TRW Automotive, he was tasked with the responsibility of promoting and implementing Lean and Six-Sigma within the Organization. Due to his extensive exposure in Lean and Six-Sigma Management System, he was invited by Malaysia Productivity Corporation (MPC) and Asia Productivity

Organization (APO) to conduct public training in the area of Six-Sigma implementation and Lean Implementation. In 2014, he been awarded as one of Malaysia Productivity Specialist by Malaysia Ministry of International Trade and Industry.



2nd IEOM High School & Middle School STEM Poster Competition at Lawrence Tech, Michigan, March 24, 2018

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Senior Design Capstone Project / FYP Poster Competition Chair

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Simulation and PLM Competition Chair

Dr. Ahm Shamsuzzoha, Sultan Qaboos University, Oman

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Berna Dengiz, Engineering Faculty of Baskent University, Baglica Campus, Ankara, Turkey
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STUDENT SUPPORT

Santosh Gudagunti, LTU

Submissions Received from Countries and Territories

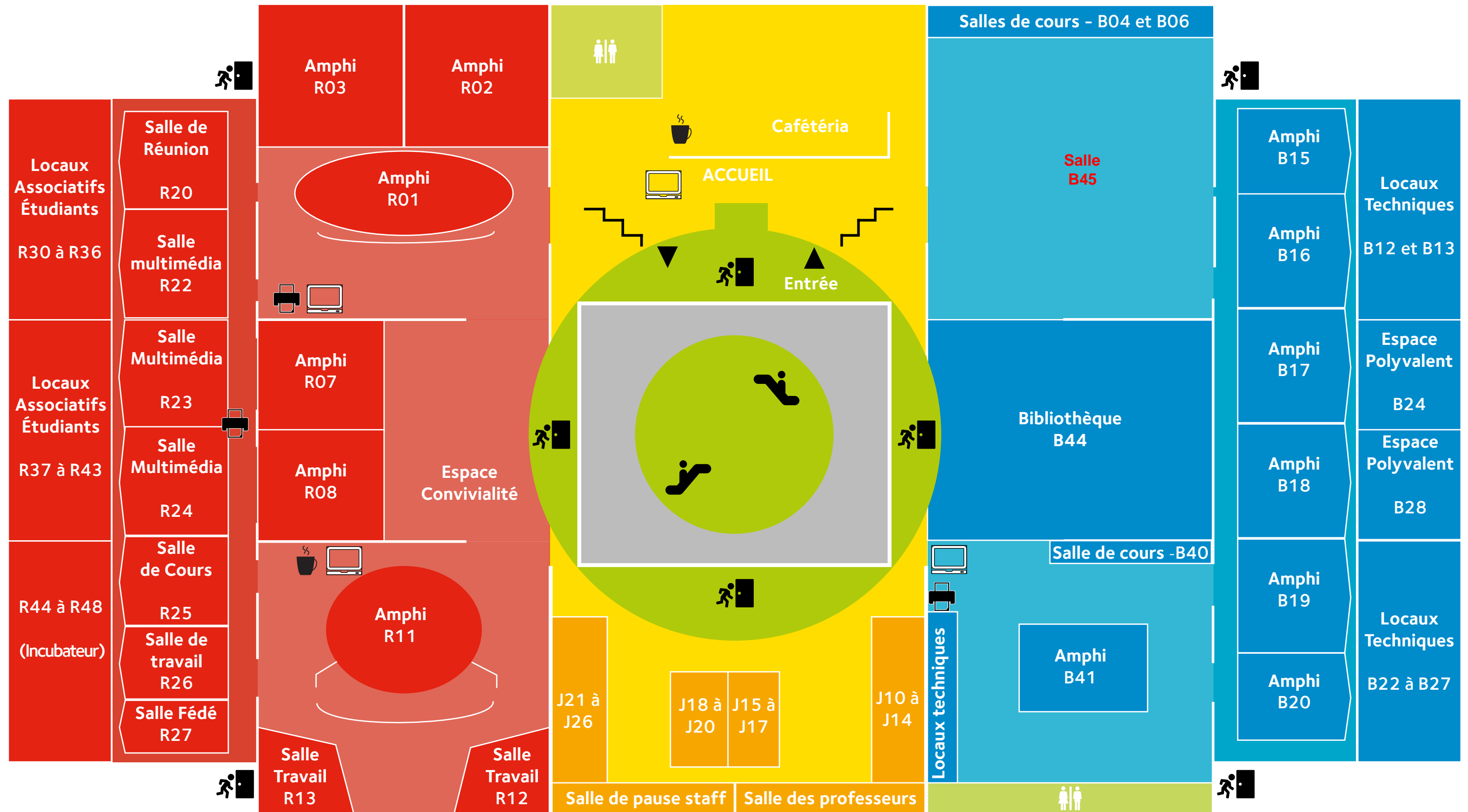
Algeria	Egypt	Lebanon	Philippines	Taiwan
Australia	Ethiopia	Malaysia	Poland	Thailand
Bangladesh	Finland	Mauritius	Portugal	Turkey
Belgium	France	Mexico	Qatar	Ukraine
Brazil	Germany	Morocco	Russian Federation	UAE
Canada	Greece	Morocco	Saudi Arabia	United Kingdom
Chile	India	New Zealand	Singapore	United States
China	Indonesia	Netherlands	South Africa	Venezuela
Colombia	Iran	Nigeria	South Korea	Viet Nam
Cuba	Iraq	Norway	South Korea	Zimbabwe
Czech Republic	Italy	Oman	Sri Lanka	
Denmark	Kazakhstan	Pakistan	Spain	
Ecuador	Kuwait	Papua New Guinea	Sweden	

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- Abu Masud, Wichita State University, USA
- Bernardo Villarreal, Universidad de Monterrey, Mexico
- Charles Mbohwa, University of Johannesburg, South Africa
- Eui Park, North Carolina A&T State University, USA
- Hamid Parsaei, Texas A&M University (College Station) and Texas A&M University Qatar
- Ilham Kissani, Al Akhawayn University, Morocco
- Umar Al-Turki, King Fahd University of Petroleum and Minerals, Saudi Arabia
- Hulas King, SIEMENS PLM, St. Louis Missouri, USA
- Masaru Tezuka, Hitachi Solutions East Japan, Ltd., Japan
- Professor Reimer, Lawrence Technological University, Michigan, USA



PARALLEL SESSIONS

Thursday, July 26, 2018

	Room B15	Room B17	Room B18	Room B19	Room B20	Room R03	Room R11	Room R25
8:00	Global Engineering Education I	Undergraduate Student Paper Competition	Big Data and Data Analytics	Supply Chain Management	Quality Control and Management	Operations Management & Operations Research	Project Management	Technology Management
09:30	Welcome Address: Dr. Jean-Philippe Ammeux , Dean of IÉSEG School of Management, Lille, France – Room R11							
9:40	Opening Keynote I: Dr. Bart L. MacCarthy , Professor of Operations Management, Division Head – Operations Management and Information Systems, Nottingham Univ. Business School, University of Nottingham , UK – Room R11							
10:20	Opening Keynote II: Dr. Yugang YU , Executive Dean, School of Management, University of Science and Technology of China (USTC) , Hefei, Anhui, China – Room R11							
11:00	Networking Break							
11:30	Global Engineering Education II	Undergraduate Student Paper Competition	Big Data and Data Analytics	Supply Chain Management	Quality Control and Management	Operations Management & Operations Research	Facilities Planning and Management	Technology Management
1:00	Lunch (Provided)							
2:30	Global Engineering Education III	Competitions	Reverse Logistics and Green Systems	Supply Chain Management	Reliability and Maintenance	Production Planning and Control	Human Factors and Ergonomics	Construction Management
4:00	Networking Break							
4:30	Global Engineering Education IV	Competitions	Service Systems and Service Management	Supply Chain Management	Reliability and Maintenance	Operations Management & Operations Research	Global Operations and Manufacturing	Inventory Management
6:00 – 7:30: Poster Session								

Friday, July 27, 2018

	Room B15	Room B17	Room B18	Room B19	Room B20	Room R03	Room R11	Room R25
8:00	Industry Solutions	Product Design and Development	Information Technology and Information Systems	Logistics, Transport and Traffic Management	Reliability and Maintenance	Operations Management & Operations Research	Systems Dynamics	Manufacturing Design and Servitisation
9:30	Keynote III: Pascale Herman , Thermal Business Marketing Director, Valeo , Paris, France Charles Sagna , THS Academy Director, Valeo Thermal Systems Business Group, Paris, France New Solutions for Car Interior Comfort, a Revolution in Health & Well-being, New Development Methods User Centric Room R11							
10:15	Keynote IV: Frédéric MORET , Industrial Director of Faurecia , Paris, France Nicolas SILVESTRE , Digital Transformation Director of Faurecia Stéphane COUDURIER , Industrial Performance Excellence Manager, Faurecia Digital Transformation of an Automotive Tier-1 Production System Room R11							
11:00	Networking Break							
11:30	Sustainability	Product Design and Development	Information Technology and Safety	Logistics, Transport and Traffic Management	Energy and Resource Efficiency	Operations Management & Operations Research	Lean and Six Sigma	Business Management
1:00	Lunch (Provided)							
2:30	Decision Analysis	Lean and Six Sigma	Engineering Education	Logistics, Transport and Traffic Management	Energy and Resource Efficiency	Operations Management & Operations Research	Systems Dynamics	Business Management
4:00	Networking Break							
4:30	Knowledge Management	Logistics, Transport and Traffic Management	Lean and Six Sigma	Logistics, Transport and Traffic Management	Energy and Resource Efficiency	Decision Sciences	Sustainable Manufacturing	Waste Management
7:00 pm – 10:00 pm: Conference Awards and Recognition Dinner – Renaissance Paris La Defense Hotel								

July 26, 2018 (THURSDAY)

Session: 8:00 – 9:30 am

08:00 – 09:30, THURSDAY

Global Engineering Education I

Room B15

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

8:00 – 8:30 (THURSDAY)

Mohammad Abdullah Shaikh

Deakin University
Victoria, Australia

8:30 – 9:00 (Thursday)

Dr. Özlem Şenvar

Associate Professor
Department of Industrial Engineering
Faculty of Engineering
Marmara University
Istanbul, Turkey

Sustainability Assessments in Energy Management AND/OR Life Cycle Assessment and Life Cycle Impact Assessments

9:00 – 9:30 (THURSDAY)

Dr. Christoph Wunck

Professor, Business Information Systems, Industrial Engineering
Jade University, Wilhelmshaven, Germany
OFFIS Institute for Information Technology, Oldenburg, Germany
Department of Computer Science, Iowa State University, Ames, USA

8:00 – 9:30, THURSDAY

Undergraduate Student Paper Competition

Room B17

Session Chair: Dr. Abbas Mahmoudabadi, MehrAstAn University, Guilan, Iran

ID 189 Performance Analysis of Dry Steam Geothermal Power Plant by Modeling and Optimization of Noncondensable Gas Removal System

Fano Alfian Ardyansyah, Universitas Gadjah Mada, Indonesia

ID 471 Line Balancing in Assembly Line - A Case Study

Michelle Eugenia Sánchez Barrientos, Valeria Argumedo Hinojosa, Fabiola Mercedes Arango García, Teresa Verduzco-Garza, Fernando González-Aleu and Jesús Vázquez, Universidad de Monterrey, México

ID 276 WEEE Management: Approach of Reverse Logistics in Higher Education Institutions

Luis Augusto Valencia Rivera and Claudia Cecilia Peña Montoya, Universidad Santiago de Cali, Colombia

ID 293 Applying Demand Aggregation to Improve Forecasting Accuracy

Estefanía Quintanilla, Mariana Herrera and Delia Villarreal & Bernardo Villarreal, Universidad de Monterrey, México

ID 158 Autonomous Container Crane to Simplify Crane Operational Based on Image Processing and Distance Calculation

Wikandhana Rajasa, Septia Sari, Rasyid Fajar and Muhammad Habibie, Institut Teknologi Sepuluh Nopember, Indonesia

8:00 – 9:30, THURSDAY

Big Data and Data Analytics

Room B18

Session Chair: RRK Sharma, Indian Institute of Technology Kanpur, India

ID 323 A New Approach for Optimal Obsolescence Forecasting Based on the Random Forest (RF) Technique and Meta-Heuristic Particle Swarm Optimization (PSO)

Yosra Grichi, Thien-My Dao and Yvan Beauregard, École de Technologie Supérieure, Canada

ID 367 A Novel Evolutionary Model for Improving Big Data Security

Ibtissame Kandrouch, Nabil Hmina and Habiba Chaoui, National School of Applied Sciences Kenitra, Morocco

ID 420 What is "Big Data": Finding from a Systematic Review, Haze Theorem and a Case Study

Abdelaziz Berradou, Mohamed V University, Rabat, Morocco
Tarik Saikouk, International University of Rabat, Rabat, Morocco
Mohamed Hicham Salah Eddine, Morocco

ID 511 Classification of Epilepsy Groups using EEG Signals and Patient Properties

Erçin Özcan and Elifcan Göçmen, Çukurova University, Turkey

ID 439 Managing Local Communities in Large Projects, Appraisal of Two complex Projects in Iran

Roya Derakhshan Alavijeh, Universidad Politecnica da Madrid, Madrid, Spain

ID 038 Relating Strategy of Core Company to Type of Analytics Used

RRK Sharma, Indian Institute of Technology Kanpur, India

8:00 – 9:30, THURSDAY**Supply Chain Management****Room B19**

Session Chair: Ahmed M. Attia, Effat University, Saudi Arabia

ID 183 Suppliers as an Important Factor in the Management of the Sustainable Supply Chain in the Food Industry

Edgar Guillermo Rodriguez Guevara, Universidad del Valle, Colombia

ID 180 Study of the Impact of Green Practices on the Performance of Supply Chain: Collaborative Approach

Abdelwahed Echchatbi, Abdelkabar Charkaoui and Mohamed Dif El Idrissi, University Hassan First, Morocco

ID 318 A Sustainability Assessment of Biofuel Supply Chain

Yohanes Kristianto, Aalborg University Copenhagen, Denmark

Liandong Zhu, University of Vaasa, Finland

Yliopistonranta 10, 65101 Vaasa, Finland

Wuhan University, China

ID 421 A Simulation Study of Sustainable Agri-Food Supply Chain

Hagar H. Amer, Noha M. Galal and Khaled S. El-Kilany, Arab Academy for Science, Technology, and Maritime Transport, Alexandria, Egypt

ID 445 Barriers to Sustainable Construction Practices in the Zambian Construction Industry

Douglas Aghimien, Clinton Aigbavboa, Ayodeji Oke, and Chanda Musenga, University of Johannesburg, South Africa

ID 289 Resource Allocation: A Moderator of the Relationship of Recycling Strategy and Organizational Performance

Ahmed M. Attia, Effat University, Saudi Arabia

8:00 – 9:30, THURSDAY**Quality Control and Management****Room B20**

Session Chair: Yousuf Nasser Al Khamisi, University of Bradford, Bradford, UK

ID 012 Implementation of Six Sigma in the Construction Projects. A Case Study of the Amman Building Construction

Maha Alkasisbeh, Rabia Almamlook and Muteb Alshammari, Civil and Construction Engineering Department; Western Michigan University, USA

ID 114 Analysis of Total Quality Management (TQM) implementation in Small Medium Industries

Thomas Windharyanto Nugroho and Rahmat Nurcahyo, University of Indonesia, Indonesia

ID 391 Study of the Cause-and-Effect Relationship between the Six Axes of the New Balanced Scorecard Model: Application of the DEMATEL Method for the Case of a Moroccan Medical Analysis Laboratory

Faiza Azour, Haj El Moussami and Latifa Ezzine, Moulay Ismail University, Toulal, Meknes, Morocco

ID 441 Designing of New Attribute Control Chart with Multiple Dependent State Sampling using a Cost Model Based on Loss Functions

Muhammad Aslam, King Abdulaziz University, Jeddah, Saudi Arabia

Mohammad Saber Fallah Nezhad and Samrad Jafarian-Namin, Yazd University, Yazd, Iran

ID 466 Quality Control Circle and Performance on Construction Industry

Ofila Irahmana and Rahmat Nurcahyo, Universitas Indonesia, Indonesia

ID 397 Developing a Conceptual Framework to Improve Healthcare Quality Management in Oman

Yousuf Nasser Al Khamisi, University of Bradford, Bradford, UK

8:00 – 9:30, THURSDAY**Operations Management and Operations Research****Room R03**

Session Chair: I Khaled S. El-Kilany, Arab Academy for Science, Technology, and Maritime Transport, Alexandria, Egypt

ID 048 Optimal Investment Decisions for Recovery from Disruptions in the Decentralized Supply Chains

Nader Azad, Saint Mary's University, Canada

Elkafi Hassini, Manish Verma, McMaster University, Canada

ID 185 Modeling Financial Criteria for Decisions of Delocalization: Case Study and Managerial Insights

Mouna Benfssahi and Zoubir El Felsoufi, Abdelmalek Essaadi University, Morocco

ID 190 A Linear Programming Approach for Land Allocation of the Commercial Crops in a Plantation

Raveena S and Sunith Hebbar, Manipal Institute of Technology, MAHE, India

ID 469 Investigating the Efficiency and Effectiveness of Project Execution in a South African Project Based Organisation

Palesa Tsotetsi and Chipo Mugova, Mancosa Graduate School of Business, South Africa

ID 212 A Review on Standards, Practices and Future Prospects of Project Management in a South African Context

Sambil Charles Mukwakungu, Matimba Davis Mabasa and Charles Mbohwa, University of Johannesburg, South Africa

ID 402 Multi-objective Optimization of Biomass Supply Chain Networks

Farah A. Al-Noweam, Ingy A. El-Khouly and Khaled S. El-Kilany, Arab Academy for Science, Technology, and Maritime Transport, Alexandria, Egypt

8:00 – 9:30, THURSDAY**Project Management****Room R11**

Session Chair: Mahdi Bashiri, Shahed University, Tehran, Iran

ID 026 Towards Increasing the Use of Pre Fabrication Components In Malaysia Construction Industry

Wan Nadzri Osman, Mohd Nasrun Mohd Nawi, Mohd Wira Mohd Shafiei and Radzi Ismail, Universiti Sains Malaysia

ID 242 Design and Build Risk Analysis to the Project Success

Hafnidar A. Rani, Muhammadiyah Aceh University, Indonesia

ID 328 Workers Productivity in Construction Sites: A Critical Review

Ghazi Moh'd Al-Abbadi and George Agyekum-Mensah, Coventry University, UK

ID 117 Real Options for Dealing with Uncertainty in Project Management: A Case Study of Moroccan Infrastructure Project

Jihane Gharib, Loubna Benabbou, Mohammed V University, Morocco

ID 168 Improving Multi-Organizational Team Integration using Organizational Strategies

Arina Binti Rahmat and Dr. Che Khairil Izam Che Ibrahim, Universiti Teknologi MARA, Malaysia

ID 192 Stakeholder Management: Impact of Viewing an Organisation as a Single Stakeholder - Effects of Internal Departments on State Owned Companies: A Case of State Water Company in South Africa

Eveth Nwobodo-Anyadiegwu, Charles Mbohwa, University of Johannesburg, South Africa

Shumba Lawrence, Johannesburg Water, South Africa

8:00 – 9:30, THURSDAY**Technology Management****Room R25**

Session Chair: Maruf Hasan, The University of New South Wales (UNSW), Australia

ID 044 A Study on Benefits and Barriers of Implementing Building Information Modelling (BIM) in Malaysian Construction Industry

Mazri Yaakob, Jessie James, Mohd Nasrun Mohd Nawi and Kamaruddin Radzuan, Universiti Utara Malaysia, Malaysia

ID 179 Technology Management for Different Types of Retail Formats: A Prospectus of IoT

Vinayak A. Drave and RRK Sharma, IIT Kanpur, India

ID 003 Feasibility of Treating Brewery Wastewater using Bio films

M. M. Manyuchi, C. Mbohwa and E. Muzenda, University of Johannesburg, South Africa

N. Chikwama, Harare Institute of Technology, Zimbabwe

ID 204 Critical Success Factors for ERP Implementations: A Moroccan Case Study Mohamed-Ilias Mahraz

Mohamed-Ilias Mahraz, Loubna Benabbou, Abdelaziz Berrado, Mohammed V University of Rabat, Morocco

ID 150 Industry Academia Knowledge Bridge: A Case Study

Manasi Ghamande, Department of Engineering Sciences and Humanities, Savitribai Phule University, Pune, INDIA

Sacchidanand Gogawale, Department of Instrumentation and Control Engineering, VIT, Savitribai Phule University, Pune, INDIA

Sanjeevani Gogawale, Zen International Systems, India

ID 285 Open Innovation Stages in the Service Sector

Pimprabha Sirito and Maruf Hasan, The University of New South Wales (UNSW), Australia

Session – THURSDAY (July 26): 9:30 – 11:00 am – Room R11

9:30 am – **Welcome Address**

Dr. Jean-Philippe Ammeux
Dean of IÉSEG School of Management

9:40 am – **Opening Keynote I**

Bart L. MacCarthy, BA, PhD, FIMA, FIOM, FIET
Professor of Operations Management
Division Head – Operations Management and Information Systems
Nottingham University Business School
University of Nottingham
United Kingdom (UK)

10:20 am – **Opening Keynote II**

Dr. Yugang YU
Executive Dean - School of Management
University of Science and Technology of China (USTC)
Hefei, Anhui, China

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

Session – THURSDAY (July 26): 11:30 am – 1:00 pm

11:30 – 1:00, THURSDAY

Global Engineering Education II

Room B15

Session Chair: Dr. Matteo Mario Savino, University of Sannio, Benevento, Italy

11:30 – 12:00 (THURSDAY)

Dra. Ma. Ángeles Gómez Gavito
Directora Lean Advancement Initiative – México y Centro Lean Enterprise
Senior Lean Six Sigma Consultant & Black Belt
Dirección General de Internacionalización
Universidad Popular Autónoma del Estado de Puebla AC.
Piso, Barrio de Santiago, Puebla, Pue. Mexico

12:00 – 12:30 (THURSDAY)

Prof. Khumbulani Mpofo
Gibela Research Chair in Manufacturing and Skills Development
Professor – Industrial Engineering Department
Tshwane University of Technology (TUT)
Pretoria, South Africa

11:30 – 1:00 (THURSDAY)

Dr. Matteo Mario Savino
Professor
University of Sannio
Benevento, Italy

11:30 – 1:00, THURSDAY**Undergraduate Student Paper Competition****Room B16**

Session Chair: Dr. Abbas Mahmoudabadi, MehrAstana University, Guilan, Iran

ID 030 Deep Groundwater Potential and Chemical Analysis Based on Well Logging Analysis at Kapuk-Cengkareng, West Jakarta, DKI Jakarta, Indonesia

J.W. Sihotang and M.S.D. Hadian, Padjadjaran University, Indonesia
T.E. Prayogi, Energy and Mineral Resources Ministry, Indonesia

ID 251 Towards Sustainable Society: Design of Food Waste Recycling Machine

Shada Bennbaia Aseel Wazwaz Alaa Abujarbou, Qatar University, Doha, Qatar

ID 370 Redesigning a Retail Store Based on Association Rule Mining

Dalal Al Attal, Mariam Naser, Nourah AlBaghli, Nourah Al Muhaimed and Sarah Al Awadh, American University of the Middle East, Eqaila, Kuwait

ID 485 Design of a Centralized Warehouse Layout and Operation Flow for the Automotive Industry: A Simulation Approach

Adriana Margarita Verduzco Guzmán, Kathia Montserrat Montalvo González, Mariana Frías Canales, María Teresa Verduzco Garza, Universidad de Monterrey, N.L., Mexico
Fátima Briceño de la Rosa, Daimler AG, N.L., Mexico

11:30 – 1:00, THURSDAY**Big Data and Data Analytics****Room B17**

Session Chair: Tang Ho Hwa, Infineon Technologies Asia Pacific Pte. Ltd, Singapore

ID 049 Adoption of Cloud Computing in Manufacturing: SWOT Analysis

Balkrishna Eknath Narkhede and Rakesh D. Raut, National Institute of Industrial Engineering (NITIE), Mumbai, India
Vaibhav S. Narwane, Veermata Jijabai Technological Institute (VJTI), Mumbai, India

ID 338 Modeling, Building and Management User Profiles: UPMS (User Profiles Management Service)

Taous Igguil and Abdelkamel Tari, University of A. Mira of Bejaia, Algeria.
Hassina Nacer, University of Science and Technology-Houari Boumediene USTHB, Algeria

ID 378 Application of Geographically Weighted Regression Analysis on World's Gasoline Prices Model

Tuti Purwaningsih, and Devina Gilar Fitri Ayu Sumardi, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 379 Indonesia's Crime Rate Analysis Using Spatial Analysis Method

Lucky Suryo Wicaksono, Tuti Purwaningsih, and Hafizhan Aliady, Universitas Islam Indonesia, Yogyakarta, Indonesia

ID 403 A Deep Long-Short-Term-Memory Neural Network for Lithium-Ion Battery Prognostics

Ahmed Zakariae Hinchí and Mohamed Tkiouat, Mohammadia School of Engineering, Mohamed V University, Rabat, Morocco

ID 300 Application of Big Data Analytics for Recommending V93K Tester Platform Focus Area with High Test Time and Index Time Deviation

Tang Ho Hwa, Koh Mei Hwei and Romero Sunshine Ander, Infineon Technologies Asia Pacific Pte. Ltd, Singapore

11:30 – 1:00, THURSDAY**Supply Chain Management****Room B18**

Session Chair: Wei Zheng, Tianjin University, Tianjin, China

ID 057 Analyzing Supply Chain Complexity Drivers using Interpretive Structural Modelling

Sujan Piya, Ahm Shamsuzzoha, Mohammad Khadem, Sultan Qaboos University, Oman

ID 075 Technological Integration and Sustainable Performance in Manufacturing Firms

Mohamad Ghazali Hassan, Muslim Diekola Akanmu, and Rushami Zien Yusoff, Northern University of Malaysia, Malaysia

ID 118 5S in Container Terminals – A Framework to Reduce Container Demand Uncertainty

Poojith V S, Vishnu K and Mridula Sahay, Amrita School of Business, Amrita Vishwa Vidyapeetham University, Coimbatore, Tamil Nadu, India

ID 494 Vehicle Routing Problem for Blood Mobile Collection System with Stochastic Supply

Andrea Pirabán Ramírez, Logistic Systems Research Group, School of Engineering, Universidad de La Sabana, Campus Puente del Común, Chía, Cundinamarca, Colombia and ICD-LOSI, Université de Technologie de Troyes, Cedex, France
Nacima Labadie, ICD-LOSI, Université de Technologie de Troyes, Cedex, France
William Javier Guerrero Rueda, Logistic Systems Research Group, School of Engineering, Universidad de La Sabana, Campus Puente del Común, Cundinamarca, Colombia

ID 536 SEM Analysis of the Impacts of Second Order Construct of Job Demands on Employees' Job Performance in Telecommunication Sector

Abdul Talib Bon and Abdirahman Mohamud Shire, Faculty of Technology Management, Business and Entrepreneurship, University Tun Hussein Onn Malaysia, Parit Raja, Malaysia

ID 083 Decisions on the Risk-averse Competing Firms under Enhancing Environmental Social Responsibility

Wei Zheng, Bo Li and Junhong Yang, Tianjin University, Tianjin, China

11:30 – 1:00, THURSDAY**Quality Control and Management****Room B19**

Session Chair: Bahar Sennaroglu, Marmara University, Turkey

ID 481 Issues and Improvement Opportunities in Management System Internal Audit – A Survey

Edly F. Ramly, EFR Certification Sdn Bhd, Malaysia

Mohd Soffian Osman, Safety Management Academy Sdn Bhd, Malaysia

ID 220 Assessment of Employee Awareness and Understanding of Quality at the ABC Company

Sambil Charles Mukwakungu, Charles Mbohwa, University of Johannesburg, South Africa

ID 280 Performance of Phase II Approaches for Monitoring Multivariate Multiple Linear Profiles based on Estimated Parameters

Ahmad Ahmadi Yazdi and Ali Zeinal Hamadani, Isfahan University of Technology, Iran

Amirhossein Amiri, Shahed University, Iran

ID 368 Integrating Quality Control Charts with Maintenance: A Brief Literature Review

Gasim Mohamed Abdelrahman, Mohammad Shamsuzzaman and Imad Alsyouf, University of Sharjah, United Arab Emirates

ID 377 A Self-Starting Risk-Adjusted AFT-based Control Chart for Monitoring the Survival Time of Patients

Elahe Tighkhorshid, Amirhossein Amiri, Farzad Amirkhani, Shahed University, Tehran, Iran

ID 308 Evaluating Measurement System by Gauge Repeatability and Reproducibility

Bahar Sennaroglu and Ozlem Yurtsever, Marmara University, Turkey

11:30 – 1:00, THURSDAY**Operations Management and Operations Research****Room R03**

Session Chair: Annabelle Glaize, IESEG, France

ID 195 The Impact of Valuation Heterogeneity on Equilibrium Prices in Supply Chain Networks

Alper Nakkas, University of Texas at Arlington, USA

Yi Xu, University of Maryland, USA

ID 294 A Sophisticated Procedure for Managing Customer Service in Banking Sector of Bangladesh

Mohammad Babul Hasan and Md. Rajib Sheik, University of Dhaka, Bangladesh

ID 550 Numerical Analysis for Identifying Mathematical Model of Tumor Therapy

Subiyanto and Yudi Nurul Ihsan, Department of Marine Science, Faculty of Fishery and Marine Science, Universitas Padjadjaran, Indonesia.

Sukono and Sudradjat Supian, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia.

Aceng Sambas, Department of Mechanical Engineering, Universitas Muhammadiyah Tasikmalaya, Indonesia

Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Kuala Terengganu, Malaysia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 419 Proactive Maintenance Strategic Application to Advance Equipment Reliability

Peter Muganyi and Charles Mbohwa, University of Johannesburg, Johannesburg, South Africa

Ignatio Madanhire, University of Zimbabwe, Harare, Zimbabwe

ID 249 Investigating the Impact of Teamwork Quality on Project Effectiveness in a Multiple-Project Management Setting

Lina Al Shatti, Kuwait Oil Company (KOC), Kuwait

ID 278 How to Improve the Patient Flow Process in Outpatient Services of a Hospital: A Problem Structuring and Lean Management Approach

Annabelle Glaize and Christine Di Martinelly, IESEG, France

Alejandra Duenas, ICN Business School, France

Isabelle Fagnot, Audencia Business School, France

11:30 – 1:00, THURSDAY**Facilities Planning and Management****Room R11**

Session Chair: Armesh Telukdarie, University of Johannesburg; South Africa

ID 095 Layout Improvement Method Selection for a Mass Production Facility

Uğur Baç and Turan Erman Erkan, Atılım University, Turkey

ID 303 Performance Measurement and Management for Facilities Management Companies

Abdulwahab Al Maimani, Al Muhandis Integrated Services, Oman

Mazin Al Hasni, Golden Leaf, Oman

ID 504 Improving the Warehouse Operations in a Furniture Importing Company

Laith A Hadidi, and Abdelhakim Azzedine Zerguine, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 372 Robust Hub Location Problem with Uncertain Inter Hub Flow Discount Factor

Reza Rahmati and Mahdi Bashiri, Shahed University, Tehran, Iran

ID 301 Determining Job Complexity in Semiconductor Manufacturing for the Prediction of Indirect Workforce Requirement

Pamela Lin, Marcus Low, Nicolas Delagneau and John Kuan, Infineon Technologies Asia Pacific Pte Ltd, Singapore

ID 112 Corrosion Management: A Case Study on South African Oil and Gas Company

Linda Njomane and Arnesh Telukdarie, University of Johannesburg; South Africa

11:30 – 1:00, THURSDAY**Technology Management****Room R25**

Session Chair: Olga Uflewskaja, University of Strathclyde, UK

ID 365 Determinants of Sustainable Continuous Improvement (Kaizen) Implementation in Malaysian Automotive Part Supplier SMEsMohd Ghazali bin Maarof and Shahryar Sorooshian, Universiti Malaysia Pahang, Pahang Darul Makmur, Malaysia
Suhaila binti Abdul Hamid, Universiti Sains Islam Malaysia, Negeri Sembilan, Malaysia**ID 413 How to Manage and Drive Change in a Small And Medium Manufacturing Production Company?**

Arabi Salma, Chafi Anas and El Hammoumi Mohammed, Laboratory of Industrial Techniques (LIT), Faculty of Science and Technology, Fez, Morocco

ID 139 An Investigation of Deployment Strategies of Advanced Process Control Systems

L. L. Mpahlwa and A. Telukdarie, University of Johannesburg, South Africa

ID 442 PackageCargo - Open Source Tool based on Optimization and Simulation for the Container Loading Problem with Dynamic Stability

Juan C. Martínez, Daniel Cuellar, Edgar Céspedes and David Álvarez-Martínez, Universidad de Los Andes, Bogotá D.C., Colombia

ID 514 Biomimicry Problem-Based Approach as a Strategy for Sustainable Innovations in the Construction Industry

Oguntona A. Olusegun and Aigbavboa O. Clinton, University of Johannesburg, South Africa

ID 334 Managing Capabilities for Research Centers in the UK's Manufacturing Sector: From Literature Review to a Conceptual Framework

Olga Uflewskaja, T.C. Wong and Michael Ward, University of Strathclyde, UK

1:00 – 2:30 pm – **THURSDAY Lunch Networking****Session – THURSDAY (July 26): 2:30 – 4:00 pm****2:30 – 4:00, THURSDAY****Global Engineering Education III****Room B15**

Session Chair: Fabio Fruggiero, University of Basilicata – Italy

2:30 – 3:00 (THURSDAY)

Dr. Funlade Sunmola, BEng (Hons), MSc, MA, PhD
Senior Lecturer in Manufacturing and Enterprise Engineering
Manufacturing, Material and Biomedical Group
School of Engineering and Technology
University of Hertfordshire
United Kingdom

3:00 – 3:30 (THURSDAY)

Dr. Ilham Kissani
Assistant Professor
Engineering & Management Science
School of Science & Engineering
Al Akhawayn University
Ifrane, Morocco

3:30 – 4:00 (THURSDAY)

Fabio Fruggiero
Assistant Professor in Industrial Systems Engineering
School of Engineering
University of Basilicata – Italy**Human Factor, Safety and Sustainability in the Industry 4.0 Era**

2:30 – 4:00, THURSDAY**Competitions****Room B17**

Session Chair: Dr. Zied Hajej, LGIPM-University of Lorraine, Metz Cedex, France

UNDERGRADUATE RESEARCH COMPETITION**ID 369 Dynamic Programming Approach to Unit Commitment Problem for Kuwait Power Generations**

Nadine Awadah, Rawan AlShikh Ali, Shaikha AlBaijan, Ghaila Al-Qallaf, Muneerah Al-Hassawi, and Suat Kasap, American University of the Middle East – AUM, Egaila, Kuwait

SIMULATION AND PLM COMPETITION**ID 011 A System Dynamics Approach to Analysis of Development Policies in Occupational Health and Safety Management System**

Mahdi Bastan, Leila Azizi and Alimohammad Ahmadvand, University of Eyvanekey, Iran

ID 395 Digital Human Modeling and Simulation to Correct Work Postures in Dentistry

Danah Ahmad, Sarah Hashem, Sarah AlAttal, Deema AlQemlas, Kareem Abbady, and Suat Kasap, American University of the Middle East – AUM, Egaila, Kuwait

HIGH SCHOOL AND MIDDLE SCHOOL STEM PROJECT**ID 382 An Alerting Device to Prevent Death Risk in Dental Treatment**

Kanticha Hothai, Thanadon Pitakwarin and Yupaporn Premkamol, Princess Chulabhorn's College Chonburi, Banbuang, Chonburi, Thailand

2:30 – 4:00, THURSDAY**Reverse Logistics and Green Systems****Room B18**

Session Chair: Nadezhda Kozlovskaya, Saint Petersburg State University, St. Petersburg, Russia

ID 137 Reverse Logistics Network Design for an E-Commerce Firm

Debadityuti Das and Rahul Kumar, University of Delhi, India
Manish Kumar Rajak, ShopClues, India

ID 457 A Closed-Loop Multi Echelon Green Supply Chain Network with Stochastic Demand

Iraj Mahdavi, Tara Esmaeilpour, Milad Hematian and Ali Tajdin, Mazandaran University of Science and Technology, Iran

ID 496 Measuring the Performance of the Reverse Supply Chain based on the BSC Approach

Faycal Mimouni and Driss Serrou, Institute of Transport and Logistics, Morocco

ID 473 An Integrated Approach with MOORA, SWARA, and WASPAS Methods for Selection of 3PLSP

Arvind Jayant and Shweta Singh, Sant Longowal Institute of Engg. & Technology, India
S. K. Garg, Delhi Technological University, India

ID 371 Scenario Reduction Approach for a Resilient Supply Chain Network

Zahra Moghimi, Mahdi Bashiri, Shahed University, Tehran, Iran

ID 373 An EOQ Inventory Model for Items Consisting of Components

Nadezhda Kozlovskaya, Nadezhda Pakhomova and Knut Richter, Saint Petersburg State University, St. Petersburg, Russia

2:30 – 4:00, THURSDAY**Supply Chain Management****Room B19**

Session Chair: Ibrahim. O. Raji, LIUC - Università Carlo Cattaneo, Italy

ID 233 Agent based Modelling for a Sustainable Distribution Network

Hajar Deqqaq and Abdellah Abouabdellah, Ibn Tofail University, Morocco

ID 128 Personality of Leaders of Mass Customization Firms

Dhananjay Singh and R.R.K Sharma, Indian Institute of Technology, Kanpur, India

ID 547 Signal Groups of Clique Compatible Graph in Traffic Control Problems

Mochamad Suyudi, Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Tembilanga Campus, Terengganu, Malaysia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Johor, Malaysia

ID 549 Calculation of Net Annual Health Insurance Premium Using Burr Distribution

Agus Supriatna, Kankan Parmikanti, Lita Novita, Sukono and Betty Subartini, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 356 An Algorithm Model for Solving the Single-Period Inventory Transportation Problems with Deterministic Demand In Construction Industry

Mohd Kamarul Irwan Abdul Rahim, Rosman Iteng and Mohd Akhir Ahmad, Universiti Utara Malaysia, Kedah, Malaysia

ID 131 Optimizing Supply Chain Network Design With Salbp-E Assembly Line Issue

Ibrahim. O. Raji and Tommaso Rossi, LIUC - Università Carlo Cattaneo, Italy

2:30 – 4:00, THURSDAY**Reliability and Maintenance****Room B20**

Session Chair: Seong-joon Kim, Chosun University, South Korea

ID 304 Performances Evaluation of Production System Taking Into Account Machine Failure and Free Shipping Option

Turki Sadok and Nidhal Rez, Université de Lorraine, France

ID 362 Preventive Maintenance Optimisation: Towards a New Model

Salima Hammadi, Amal Boukili, Brahim Herrou, Mohammed El hammoumi, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 363 Methodology for Optimizing the Use of NDT in Predictive Maintenance

Amal Boukili, Mohammed El Hammoumi and Said Haouache, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 398 Aligning the Maintenance Strategy with the Business Context to Eliminate Hurdles in Translating the Business Strategy

Peter Muganyi and Charles Mbohwa, University of Johannesburg, Johannesburg, South Africa

ID 412 Harnessing Technology Management to Heighten Physical Assets Reliability

Peter Muganyi and Charles Mbohwa, University of Johannesburg, Johannesburg, South Africa

ID 330 Implementation of Accelerated Degradation Testing Methods using R-Excel interface

Seong-joon Kim, Chosun University, South Korea

Suk Joo Bae, Byeongmin Mun, and Chuljin Park, Hanyang University, South Korea

2:30 – 4:00, THURSDAY**Production Planning and Control****Room R03**

Session Chair: Deemah Aljuhani, University College London, UK

ID 120 Optimal Control Theoretic Approach to Health Care Investment

Mustafa Akan, Doğuş Üniversitesi, Turkey

ID 172 Output Level Improvement in Small and Medium-Sized Manufacturing Enterprises with Regard to Factors Influencing Production-workers

Bhimasen Soragaon, B P Mahesh and Anandkumar R Annigeri, JSS Academy of Technical Education, India

ID 275 Discrete Event Simulation for Resource Programming: Case of Ecuadorian Textile Industry

Erik Orozco Crespo, Neyfe Sablón Cossio and Ramiro Vicente Saraguro Piarpuezán, Técnica del Norte University, Ecuador

ID 456 A Three Echelon Supply Chain Model with Fuzzy Demands and Disruptions

Iraj Mahdavi and Milad Hematian, Mazandaran University of Science and Technology, Iran

Mir Mehdi Seyed Esfahani, Amir Kabir University of Technology, Iran

Mazandaran University of Science and Technology, Iran

ID 501 Analysis of an Economic Order Quantity and Forecasting Models for Transmission Plant

Qasim M Kriri, Lawrence Technological University, USA

ID 129 Improved Layout for the Pallet Loading Problem using Mega-Box Representation

Deemah Aljuhani and Lazaros G. Papageorgiou, University College London, UK

2:30 – 4:00, THURSDAY**Human Factors and Ergonomics****Room R11**

Session Chair: Ma. Janice J. Gumasing, Mapua University, Philippines

ID 193 Effect of Internal Environment in a Virtual Team

Ateequr Rahman, R.R.K. Sharma and Vinayak A Drave, Indian Institute of Technology, Kanpur, India

ID 438 Improving Diagnostic Reliability for Surgical Procedures Using Lean Principles

Javed Cheema, Neapco Drivelines Systems, Farmington Hills, United States

ID 135 An Evaluation of Human Resource Engagement Practices: An African Context

Medoh Chuks and Telukdarie Arnesht, University of Johannesburg, South Africa

ID 148 Simulation Modeling for Productivity Improvement of a Production Line: A Case Study

Subrata Talapatra, Rahnuma Tarannum and Jannatul Shefa, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna, Bangladesh

ID 258 Predictive Model on the Severity of Musculoskeletal Disorder and Accidents of Truck Drivers in the Philippines

Ma. Janice J. Gumasing and Marcelli Elaine G. Pacheco, Mapua University, Philippines

2:30 – 4:00, THURSDAY**Construction Management****Room R25**

Session Chair: Deevesh Sharma, Malaviya National Institute of Technology Jaipur, India

ID 310 Investigation of Poor Service Delivery of Road Infrastructure

Nokulungu Xolile Mashwama, Didibhuku Thwala and Clinton Aigbavboa, University of Johannesburg, South Africa

ID 404 An Evaluation of Road Hump Markings in Riyadh: Detectability of the Shapes and Colors

Ahmed M. El-Sherbeeney, Woo-Hyung Park, Mohammed A. Alghufaili and Abdulrahman I. Al-Husseini, King Saud University, Riyadh, KSA

ID 497 Preferred Team Roles of Construction Professionals in the South African Construction Industry

Douglas Aghimien, Ayodeji Oke, Clinton Aigbavboa, and Nokuphila Ntuli, University of Johannesburg, South Africa

ID 254 Development of New Payment Method for Industrialised Building System (IBS) Project in Malaysian Construction Industry Using Analytic Hierarchy Process (AHP)

Natasha Dzulkalnine, Mohamed Nor Azhari Azman and Khuan Wai Bing, Sultan Idris Education University, Perak, Malaysia

Abdul Talib Bon and Edie Ezwan Mohd Safian, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 521 Development of Regression Model for Visual Discomfort in Building Spaces: an Experimental Study

Deevesh Sharma, Awadhesh Kumar and Monica Sharma, Malaviya National Institute of Technology Jaipur, India

4:00 – 4:30: Break**Session – THURSDAY (July 26): 4:30 – 6:00 pm****4:30 – 6:00, THURSDAY****Global Engineering Education IV****Room B15**

Session Chair: Balan Sundarakani, University of Wollongong, Dubai, UAE

4:30 (THURSDAY)

Carmen Pasca

Liberal Arts Department

College of Engineering and Technology

American University of the Middle East – AUM

Egaila, Kuwait

Suat Kasap

Industrial Engineering Department

College of Engineering and Technology

American University of the Middle East – AUM

Egaila, Kuwait

Thinking Ethics Differently: Challenges and Opportunities for Engineering Education

5:00 (THURSDAY)

Edly F. Ramly

Certification Director

EFR Certification

Johor, Malaysia

5:30 (THURSDAY)

Dr. Balan Sundarakani, B.Eng, M.Eng, PhD

Associate Professor, Supply Chain Management

Discipline Leader, MSc Logistics

Faculty of Business & Management

University of Wollongong

Dubai, UAE

Big Data Driven Supply Chain Analytics

4:30 – 6:00, THURSDAY**Competitions****Room B17**

Session Chair: Dr. Ali Siadat, Professor, Arts et Métiers ParisTech de METZ, Metz, France

GRADUATE STUDENT PAPERS COMPETITION**ID 347 Introducing Statistical Process Control Techniques into a Headliner Subassembly Process**

Torie G. Rose, Lawrence Technological University, USA

ID 458 The Effect of Ceiling Height on Thermal Comfort for Ceiling-Based Air Distribution Systems Vs Underfloor Air Distribution Systems in an Office Space

Meshal AlOtaibi, University of Kansas, USA

DOCTORAL DISSERTATION COMPETITION**ID 428 Bi-level Programming Model for Combining Motivation, Opportunity and Ability Factors in Knowledge Sharing**

Mohsen Tabatabaei, Abbas Afrazeh and Abbas Seifi, Amirkabir University of Technology, Tehran, Iran

4:30 – 6:00, THURSDAY**Service Systems and Service Management****Room B18**

Session Chair: Camila S. Mattos, Federal University of Santa Catarina - UFSC, Brazil

ID 006 A Comparison of Ambulance Location Models in Two Mexican Cases

Jenny Díaz Ramírez, Edgar Granda, Bernardo Villarreal and Gerardo Frutos, Universidad de Monterrey, México

ID 007 A Multiple Criteria Approach for Defining the Ambulance System Structure: A Case Study

Jenny Díaz Ramírez, Edgar Granda & Bernardo Villarreal, Universidad de Monterrey, México

Yazmin Maldonado, Instituto Tecnológico de Tijuana, Mexico

ID 004 Improve an Emergency Medical System Capacity with Theory of Constraints

Bernardo Villarreal, Jenny Díaz Ramírez, Aracely Carranza, Gabriela Morales & Arturo Quezada, Universidad de Monterrey, México

Jose Arturo Garza Reyes, Derby Business School, UK

ID 061 Managing Customer Requirements for an Effective Service Implementation in a Product-Service System (PSS)

Nicolas Haber, Mario Fagnoli, Ahmad Ababneh and Massimo Tronci, Sapienza - University of Rome, Italy

ID 141 Study of Service Operations of Metro: Action Research Embedded with Case Study

Niyazudeen Kamarudeen and Balan Sundarakani, University of Wollongong in Dubai, Knowledge Park, Dubai, UAE

Mohammad Nabhan, Road & Transport Authority, Dubai, UAE

ID 096 Proposal to Assess the Results of Service Modularization

Camila S. Mattos, Diego C. Fettermann, and Paulo A. Cauchick-Miguel, Federal University of Santa Catarina - UFSC, Brazil

4:30 – 6:00, THURSDAY**Supply Chain Management****Room B19**

Session Chair: M. Khurshid Khan, Abdul Wali Khan University, Pakistan

ID 196 A Multi-Objective Approach to Sustainable Disaster Waste Management

Muhammad Salman Habib and Biswajit Sarkar, Hanyang University, South Korea

ID 427 Investigating Supply Chain Performance and Supply Chain Integration Linkage in Jordanian Manufacturing Firms

Vikas Kumar, Jack Zeidan, Archana Kumari, University of the West of England, Bristol, UK

Jose Arturo Garza-Reyes, University of Derby, Derby, UK

Jiri Tupa, University of West Bohemia, Pilsen, Czech Republic

ID 430 New Framework to Optimise Leagile Supply Chain Design

Thi Hong Dang Nguyen and Thien-My Dao, l'Université du Québec, Montréal, QC, Canada

ID 455 Achieving Sustainability in Construction through Value Management

Douglas Aghmien, Ayodeji Oke, Clinton Aigbavboa, University of Johannesburg, South Africa

ID 339 Outsourcing Evolution and State-of-the Art Practices: Empirical Analysis of Oil and Gas Industry

Nnamdi Ogbuke, University of Central Lancashire, UK

ID 484 Developing a Risk Assessment Model for non-Technical Risk in Energy Sector

Sahar Mohammad AL Mashqbeh, J. E. Munive-Hernandez, University of Bradford, UK

M. Khurshid Khan, Abdul Wali Khan University, Pakistan

4:30 – 6:00, THURSDAY**Reliability and Maintenance****Room B20**

Session Chair: Indra Gunawan, The University of Adelaide, Australia

ID 115 Impact of Training on Maintenance Performance Effectiveness

Fatoni and Rahmat Nurcahyo, Universitas Indonesia, Indonesia

ID 122 GA-based Corrective Maintenance Scheduling for Port Facilities with Multiple Maintenance Modes

Danping Lin, Chen Chen and Daofang Chang, Shanghai Maritime University, China

ID 298 Optimization of the Turnaround Maintenance (TAM) Performance by TAM Model to Gas Plants in Case Study for Gas Turbines

A.Elwerfalli, M. K. Khan and Munive-Hernandez, University of Bradford, UK

ID 344 Calculating the Effect of Maintenance Human Error Factors on Total Cost

Rogelio Emmanuel Jáuregui Miramontes and Yuri A. Lawryshyn, University of Toronto, Canada

ID 121 Optimization Model of Imperfect Preventive Maintenance Schedule for Complex System with Critical Components

Danping Lin and Wenyan Guo and Hongtao Hu, Shanghai Maritime University, China

ID 345 Vulnerability Analysis of Water Distribution Networks Using Betweenness Centrality and Information Entropy

Seyed Ashkan Zarghami, Indra Gunawan and Frank Schultmann, The University of Adelaide, Australia

4:30 – 6:00, THURSDAY**Operations Management and Operations Research****Room R03**

Session Chair: Eghbal Rashidi, Santa Clara University, Santa Clara, USA

ID 448 Development of Approximation Algorithms for Minimizing the Average Flowtime and Maximum Earliness with Zero Release Dates

Saheed Akande, Afe Babalola University, Ado-Ekiti Nigeria

Ayodeji. E. Oluleye, University of Ibadan, Ibadan, Nigeria

E.O. Oyetunji, Lagos State University, Lagos, Nigeria

ID 480 Risk Assessment Decision Matrix for Emergency Room's Employee in a Turkey Case

A. Nilgun Kayadelen, Cukurova University, Turkey

Piril Tekin, Adana Science and Technology University, Turkey

ID 040 A Heuristic Policy for Outpatient Surgery Appointment Sequencing: Newsvendor Ordering

Farzaneh Mansourifard, Alzahra University, Iran

Parisa Mansourifard, Morteza Ziyadi and Bhaskar Krishnamachari, University of Southern California, USA

ID 163 A Process Improvement Study in an Emergency Department Using Lean Methodology

Nirouz Abeidi, University of Benghazi, Libya

Ali Turkiylmaz, Nazarbayev University, Kazakhstan

Ozgur Uysal, American University of the Middle East, Kuwait

ID 319 Impact of Organizational Culture on Service Quality

Yonela Gantsho and Nita Sukdeo, University of Johannesburg, South Africa

ID 429 Semiconductor Manufacturing Planning under Demand, Production and Process Yields Uncertainties

Eghbal Rashidi, Santa Clara University, Santa Clara, USA

Scott Mason, Clemson University, Clemson, USA

4:30 – 6:30, THURSDAY**Global Operations and Manufacturing****Room R11**

Session Chair: Jen Ling Gan, Universiti Teknologi Malaysia

ID 116 A Measurement Instrument for Manufacturing Competitiveness of Automotive Industry Parts Suppliers in Mexico

Luz María Valdez de la Rosa, Universidad de Monterrey, México

Luis Alberto Villarreal Villarreal, Universidad Autónoma de Nuevo León, México

Juan Baldemar Garza Villegas, Signux Group, México

ID 230 Design of a Global Sourcing Strategy to Reduce Assembly Components Cost: A Case Study

Teresa Verduzco-Garza, Marcos Cisneros, Francisco Lopez and Daniela Santiago, Universidad de Monterrey, Mexico

ID 495 Study of Impact of Industrial Logistics Function on the Performance of the PME Case Maintenance Function in Morocco

Driss Serrou, ISTL, Casablanca, Morocco

Faycal MI Mouni, ISTL, Casablanca, Morocco

ID 322 Finding the Optimal Path of Airline Flight Plans using Simulation

İlkün Orbak, Maltepe University, Turkey

Ali Yurdun Orbak, Uludag University, Turkey

ID 062 Creation of an Automated Warehouse Management System

Johannes Mapokgole and Tengen Thomas, Vaal University of Technology, South Africa

ID 295 A Method to Measure Overall Material Efficiency in Semiconductor Backend Manufacturing Environment

Tang Ho Hwa and Ang Xinhao, Infineon Technologies Asia Pacific Pte. Ltd, Singapore

Ku Swee Hiong, Infineon Technologies (Malaysia) Sdn. Bhd, Malaysia

Gao Xing, Infineon Semiconductors (Wuxi) Co. Ltd, China

4:30 – 6:30, THURSDAY**Inventory Management****Room R25**

Session Chair: Budi Santosa, Institut Teknologi Sepuluh Nopember, Indonesia

ID 092 A Robust Optimization Approach to an Inventory System with Emergency Lateral TransshipmentHamed Tayebi, Islamic Azad University, Iran
Soraya Nemati, Noore Touba University, Iran**ID 152 Models of Performance Evaluation of Spare Parts Inventory Management**

Oumaima Bounou, Abdellah El Barkanyb and Ahmed El Biyaalic, Sidi Mohammed Ben Abdellah University, Morocco

ID 005 Reduce Slow Moving Inventory of Convenience Stores: A Case StudyBernardo Villarreal, Leslie Sosa, Jesus Vazquez, Estefanía Quintanilla, Mariana Herrera & Delia Villarreal
Universidad de Monterrey, México**ID 042 Percentile Policies for Inventory Problems with Partially Observed Markovian Demands**Farzaneh Mansourifard, Alzahra University, Iran
Parisa Mansourifard and Bhaskar Krishnamachari, University of Southern California, USA**ID 154 Optimal Vendor-Buyer Cooperative Inventory Policy for Order Size Dependent Transportation Cost**

Sharon Orenge, Md. Shahriar J. Hossain and Bhaba R. Sarker, Louisiana State University, USA

ID 226 Modeling and Optimal Replenishment of Bi-Objective, Green, and Integrated EPQ Model under the QC Policy

Abolfazl Gharaei, University of Toronto, Canada

ID 389 Integrating a Supply Chain with Vendor Managed Inventory and Joint Replenishment Policies

Milad Khajehnezhad, University of Wisconsin-Milwaukee, Milwaukee, USA

ID 474 Multiple Can-Order Level for Can-Order Policy Optimization: A Case Study

Budi Santosa and Faldy Maulana Yudianto, Institut Teknologi Sepuluh Nopember, Indonesia

6:00 – 7:30 (THURSDAY) - Poster Session**Posters****ID 023 Improvement of Superficial Hardness of S355JR Steel by Superficial Plastic Deformation**Abdeldjalil Bouri, Mounira Bourebia and Sihem Achouri, Industrial Technologies Research Center. CRTI, Algeria
Laouar Lakhder, Badji Mokhtar University, Algeria**ID 028 Identification and Ranking of Innovation Management Factors in Petrochemical Companies Producing Polyethylene Products**

Yadollah Sadeghi and Abbas Khamseh, Islamic Azad University, Iran

ID 031 Derive Poker Winning Probability by Statistical JAVA Simulation

Mason Chen, Stanford OHS, USA

ID 032 The Role of Information Sharing on Supply ChainMahdie sheikh, Hormozgan Regional Electric Company, Bandarabbas, Iran
Maryam Goodarzi, Islamic Azad University, Tehran Iran
Abozar Nowrozonejad, Islamic AZAD UNIVERSITY, Tehran, Iran
Saeede Sheikhi, Amir Kabir University Tehran Iran**ID 066 An Assessment of the Lean Deployment in the Mauritian Textile Industry**

Keshav Ramgoolam and Needesh Ramphul, University of Technology, Mauritius

ID 073 Fuzzy Logic Control System in Medical Field

Brahmi Samira and Zermane Hanane, Batna 2 University, Algeria

ID 079 Solutions to Overcome Current MCDM Limitations

Yasaman Parsia and Puteri Fadzlina Muhamad Tamyaz, Universiti Malaysia Pahang, Malaysia

ID 084 Video Game: Continuous Track DesignJason Li, San Mateo High School, San Mateo, USA
Mason Chen, Stanford OHS, Palo Alto, USA**ID 086 Predict NBA Team Winning Record**

Mason Chen, Stanford OHS, USA

ID 087 Study Baseball Pitching/Swing Contact Quality

Mason Chen, Stanford Online High School, United States

ID 088 Choose Healthy Chocolate

Mason Chen, Stanford OHS, Palo Alto, USA

ID 094 Design Thinking in Product Configuration Projects

Sara Shafiee, Saeedeh Shafiee Nahrkhalaji, Lars Hvam and Niels Henrik Mortensen, Technical University of Denmark, Denmark

ID 098 Product Modularization in the Architecture, Engineering and Construction (AEC) Industry

Sara Shafiee and Lars Hvam, Technical University of Denmark, Denmark
Poorang Piroozfar, University of Brighton, UK

ID 100 Role of Hospital Management on Minimization Risks of Nosocomial Infections

Yasaman Parsia and Puteri Fadzline Muhamad Tamyaz, Universiti Malaysia Pahang, Malaysia

ID 113 Application of Value Stream Mapping and Monte Carlo Simulation in a University Hospital

Leonardo Bittencourt de Souza, Guilherme Luz Tortorella, and Paulo A and Cauchick-Miguel, Federal University of Santa Catarina - UFSC, Brazil
Daniel Nascimento, Pontifícia Universidade Católica do Rio de Janeiro – PUC-RJ, Brazil

ID 136 Cartesian Transformations of Polar Coordination

Kyuman Kim, CheongShim International Academy, South Korea

ID 162 Investigating the Awareness of Decision-Making Heuristics and Biases in the Selection and Definition of Infrastructure Projects

Mohamed Ali, Michael Emes and Raúl Leal, University College London, UK

ID 164 Appointment Scheduling Optimization for Specialist Outpatient Services

C. K. M. Lee, KKH Ng and M. C. Cheng, The Hong Kong Polytechnic University, China

ID 184 An Environmental Concrete with Algerian Concrete

Saida Kitouni, Constantine 3 University, Algeria

ID 227 Optimum Entrance Rate to Mechanical Assembly Line of RIO Vehicle in SAIPA Corporation

Abolfazl Gharaei, University of Toronto, Canada
Mohammad Ali Ashtari Jafari, Kharazmi University, Iran

ID 229 Optimum Speed of Conveyor in Mechanical Assembly Line of RIO Vehicle in SAIPA Corporation

Abolfazl Gharaei, University of Toronto, Canada
Mohammad Ali Ashtari Jafari, Kharazmi University, Iran

ID 235 Stochastic Optimization of Dairy Supply Chain Valorization Model by Considering Byproducts

S.Rozita Ebrahimi and Farid Khoshalhan, Industrial engineering department of K.N.Toosi University of technology, Iran
Hamed Ghaderzadeh, University of Kurdistan, Iran

ID 257 Implementation of Lean & Agile Strategy in Plant and Equipment Procurement in Tertiary Institutions

Bashir Garba.I, Muhammad Dauda, F.O Anafi and Bello Sabo, Ahmadu Bello University, Zaria, Nigeria

ID 266 Strategic Collaborative Planning Model And Its Applications in Ecuador, Mexico and Cuba

Neyfe Sablón Cossío and Erik Orozco Crespo, Universidad Técnica de Manabí, Ecuador
Manuel Lázaro Pérez Quintana and Ruth I. Areas Gutierrez, Amazon State University, Ecuador
Horacio Bautista Santos and Fabiola Sánchez Galván, Instituto Tecnológico Superior de Tantoyuca, México

ID 288 Total Productive Maintenance: A Tool to Reducing Downtime in a Plant

Yusuf Sanni O., University of Lagos, Akoka, Nigeria

ID 292 Preparation and Evaluation of Carbon Synthesized by Chemical Activation of Mango Seeds

Alicia Chen and Emily Chen, Dublin High School, CA, USA

ID 311 Identifying and Ranking the Effective Factors of Business Intelligence on the Organizational Strategic Decisions

Mahdiar Rahro and Alireza Soleimanmafi, Tarbiat Modares University, Tehran, Iran

ID 316 Design & Fabrication of 3-axis CNC Milling (Project Based Learning in Mechanical Design)

Bandar Zahid, Khalid Ababtain, Fayyaz Nadeem and Hazim Abdulaziz Moria, Yanbu Industrial College, Saudi Arabia

ID 321 Supervision of an Industrial Process of Milk Production using Fuzzy Logic

Hanane Zermane, Samira Brahmi, Naima Zerari and Rachad Kasmi, Laboratory of Automation and Manufacturing, Industrial Engineering Department, University Batna 2, Batna, Algeria

ID 324 Discrete Event Simulation for Chemotherapy Patient Flows

Dang Khoi Pham and Christine Di Martinelly, IESEG School of Management, France
Alejandra Duenas, ICN Business School (CEREFIGE), France

ID 327 Design and Optimization of Plastic Shredder Blade

Sekar L Ravi, Rajalakshmi Engineering College, India

ID 329 Procedure for the Ergonomic Risks Management, with a Process Approach, in Organizations

Yolaine Cisneros Rodríguez, Marisol Pérez Campaña, Claudia Diaz Leyva and Miguel A. Cisneros Prieto, University of Holguin, Cuba

ID 333 Evaluation of Control Activities through Diffuse Compensatory Logic in a Hospital Entity

Leudis Orlando Vega de la Cruz, Mayly Torres Álvarez and Ileana Tapia Claro, University of Holguin, Cuba

ID 335 Conceptualization of the Current Status of the Impact Evaluation of Human Resources Training in Organizations

Claudia Díaz Leyva, Clara Marrero Fornaris, Carlos Nuñez Cruz and Yolaine Cisneros Rodríguez, University of Holguin, Cuba

ID 336 Optimization of Production in Workshops with Reconfigurable Machine Tools

Pedro Díaz Leyva, Company BRASCUBA Cigarrillos SA, Cuba

Claudia Díaz Leyva, Aylín Pupo Pérez and Mayly Torres Álvarez, University of Holguin, Cuba

ID 357 Achieving Procurement Excellence through A Bayesian Network Modelling Approach

Mohammad Hassan Abolbashari, School of Business, University of New South Wales, Australia

ID 375 Developing Thai and English Braille Fonts by using FontForge.

Sathaphon Cheratummakool and Punthat Siriwan, Princess Chulabhorn's College Chonburi, Thailand

ID 376 How Can Sustainability Strategy of Supply Chain Management In University?

Lenny Ch Nawangsari and Ahmad Hidayat Sutawidjaya, Mercu Buana University, Jakarta, Indonesia

ID 390 Use of Data Mining and Neural Network Algorithms to Optimize the Implementation of Value Engineering in Projects

Alimeh Mofidi Naeini and Mohamad Bozorgi, Iran

ID 400 Thermography Monitoring and Diagnostic Tool in Predictive Maintenance

Amal Boukili and Mohammed Mesrar, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 405 Developing of an Open Source Eletrocardiogram Prototype

Suppakit Chantarasittipol and Thanut Bumrungsawat, Princess Chulabhorn's College Chonburi, Thailand

ID 409 Proposal of Procedure for Maintenance Management in Plastics Processing Factories of Cuba

Márian Pérez Pérez and Ángel Tomás Pérez Rodríguez, University of Holguin, Cuba Ave. Holguin

ID 411 Reviewing Postponement in the South African Automobile Industry: A Literature Review Perspective

Polycarpe Feussi, University of Johannesburg, South Africa

ID 424 Starbucks Coffee Statistical Analysis

Anna Wu, Mission San Jose High School, Fremont, USA

ID 433 Comparison of Different Designs of the FAST-Mobile

Abdul Rauf and Anjum Ali, National University of Computer and Emerging Sciences, Lahore, PAK

ID 434 Inventory Control Policies in the Humanitarian Supply Chain Using System Dynamics Modeling

Ali Anjomshoe, Adnan Hassan and Kuan Yew Wong, Universiti Teknologi Malaysia, Skudai, Malaysia

ID 447 Procedure to Manage the Suitability of Workers in Public Health Entities

Carlos Rafael Nuñez Cruz, Leudis Orlando Vega de la Cruz and Claudia A. Díaz Leyva, University of Holguin, Holguin, Cuba

ID 488 Ranking the Needs of Students with Disabilities at the University of Sharjah and Identifying the State of the Art of Assistive Technologies

Mohamed Adam, Saif AlKhaja, Mohammed Alsafadi, Mohammed Baraa Sayour, Sadeque Hamdan, and Imad Alsyoud, University of Sharjah, UAE

ID 525 Proposal of Procedure for Maintenance Management in Plastics Processing Factories of Cuba

Márian Pérez Pérez, University of Holguin, Holguin, Cuba

Ángel Tomás Pérez Rodríguez, University of Holguin, Holguin, Cuba

Senior Capstone Design Poster Competition

Chair: Dr. M. Shamsuzzaman, University of Sharjah, UAE

ID 374 Improvement of Diabetes Awareness: Applying Six Sigma to Increase Teachers Awareness Regarding Diabetic Children in Primary Schools in Kuwait

Fatemah Al-Juhaim, Layali Al-Dhefeeri, Rawan Al-Shatti, Shaikha AlDaboos, and Walid Smew, American University of the Middle East (AUM), Eqaila, Kuwait

July 27, 2018 (FRIDAY)

Session: 8:00 – 9:30 am

8:00 – 9:30, FRIDAY

Industry Solutions

Room B15

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

8:00 – 8:25 (FRIDAY)

Foad Hosseinkhanli

Director of Quality Assurance, Performance and Business Improvement
Amor Health Services, Inc.
Brownsville, Texas, USA
Certified Master Black Belt
Certified Scrum Master
Certified Quality Assurance Engineer

Risk Assessment Made Easy in Health Care Industry by Applying Lean Six Sigma Methodology

8:25 – 8:50 (FRIDAY)

Aaron Burciaga

Vice President Data Science & Machine Intelligence
Booz Allen Hamilton
Washington D.C., USA

When the Signal IS the Noise: Impending Ubiquity and Opportunity of Sensors and Machine Intelligence On The Edge

8:50 – 9:10 (FRIDAY)

Dr. Abdul Talib Bon

Professor of Technology Management
Department of Production and Operations Management
Universiti Tun Hussein Onn Malaysia

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

9:10 – 9:30 (FRIDAY)

Dr. William Msekiwa Goriwondo (PhD, FZ'weIE, Pr. Eng., MloDZ)

Executive Dean
Faculty of Industrial Technology
National University of Science and Technology (NUST)
Zimbabwe

Industry – Academia partnerships in enhancing engineering education in Zimbabwe. Case Study of the National University of Science and Technology (NUST) in Zimbabwe

8:00 – 9:30, FRIDAY

Product Design and Development

Room B17

Session Chair: Salima Hammadi, Sidi Mohamed Ben Abdellah University, Fez, Morocco

ID 034 Design for manufacture and assembly of a mini combine wheat harvester: Case of a developing nation - Zimbabwe.

Rumbidzai Prosper Jera, University of Zimbabwe, Zimbabwe
Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 035 Design for Manufacture and Assembly of an Automated Mirror Cutting Machine

Allen Hondo, University of Zimbabwe, Zimbabwe
Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 036 Design for Manufacture and Assembly of an Automated Wood Cutter: Case for Developing Country

Ruvimbo Constance Mhlanga, University of Zimbabwe, Zimbabwe
Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 477 Resource Recovery from Corn Residues through Production of Biogas and Bio-hydrogen

M. M. Manyuchi, C. Mbohwa and E. Muzenda, University of Johannesburg, South Africa
F. Moyo, Harare Institute of Technology, Zimbabwe

ID 479 Bioethanol Production from Corn Residue

M. M. Manyuchi, C. Mbohwa and E. Muzenda, University of Johannesburg, South Africa
C. Muganu, Harare Institute of Technology, Zimbabwe

ID 506 A New Multi-Criteria Product Design Concept Evaluation with Consideration of Product Architecture, Process and Supply Chain Design

Hesam Shidpour and Mohsen Shidpour, University of Hormozgan, Iran

8:00 – 9:30, FRIDAY**Information Technology and Information Systems****Room B18**

Session Chair: Agung Terminanto, Universitas Indonesia, Depok, Indonesia

ID 072 Strategic Alignment of Information Systems Flexibility with Organization's Operational and Manufacturing Philosophy: Developing a Theoretical Framework

Somen Dey and R.R.K. Sharma, Indian Institute of Technology Kanpur, India

ID 077 Integrating Business Process Management with Public Sector

George A. Papadopoulos, Euripides Kechagias, Panagiota Legga and Ilias Tatsiopoulos, National Technical University of Athens (NTUA), Greece

ID 085 Relating Flexibility, Scalability and Security Issues in Internet of Things (IoT) To Strategy of the Firm

RRK Sharma and Vinayak Drove, IIT Kanpur, India

ID 106 Virtual Power Plant Basic Requirements for Integration of Distributed Energy Resources, Driven by Industry 4.0

Oliver Nwauka, Arnesh Telukdarie and Johan Enslin, University of Johannesburg, South Africa

ID 156 Skills Development by Training: Case of the Automated Systems' Agents

Bakkari Mohammed and Khatory Abdellah, Sidi Mohamed Ben Abellah University, Morocco

ID 351 Patient-centered Deep Learning Model and Diagnosis Service for Persons with Alzheimer's disease

Robin G. Qiu, Big Data Lab, Division of Engineering and Info Science, Penn State, Malvern, PA, USA
Jason L. Qiu, Methacton School District, Eagleville, PA, USA

8:00 – 9:30, FRIDAY**Logistics, Transport and Traffic Management****Room B19**

Session Chair: Eric Wibisono, University of Surabaya, Indonesia

ID 046 A Granular Tabu Search Algorithm for a Real Case Study of a Vehicle Routing Problem with a Heterogeneous Fleet and Time Windows

Jose Bernal and John Willmer Escobar, Universidad del Valle, Colombia
Rodrigo Linfati, Universidad del Bío - Bío, Chile

ID 047 Matheuristic Algorithm for the Dynamic Problem of Location and Dispatch of Medical Emergency Vehicles

Juan Camilo Paz and John Willmer Escobar, Pontificia Universidad Javeriana Cali, Valle del Cauca, Colombia
Cesar Augusto Marín Moreno, Universidad Tecnológica de Pereira, Colombia

ID 068 Optimal Collection of Two Similar Products from N Ordered Customers

Epaminondas G. Kyriakidis, Athens University of Economics and Business, Greece
Constantinos C. Karamatsoukis, Hellenic Military Academy, Greece
Theodosios D. Dimitrakos, University of the Aegean, Greece

ID 132 Proposal of Professional Referential Evaluating the Performance of Downstream Supply Chain in Moroccan Automotive Industry

Chouaib Elhammouchi and Abdellah Abouabdellah, University Ibn Tofail, Morocco

ID 134 Exploitation of the Forecasted Need to Pilot Upstream Logistics in Moroccan Automotive Industries

Rim Sghiori and Abdellah Abouabdellah, University Ibn Tofail, Morocco

ID 138 Eco-Driving Techniques Applied in a Transport Fleet in Ecuador: A Case Study with Quantifiable and Measurable Techniques

Gustavo Alvarez Coello, Jorge Muñoz Falconí and Fernando Rivas Paz, Universidad del Azuay, Ecuador

8:00 – 9:30, FRIDAY**Reliability and Maintenance****Room B20**

Session Chair: Mei Li, Tianjin University, China

ID 436 A Hybrid Approach based on Fault Tree and Bayesian Network for Maintenance and Fault Diagnosis of Safety Instrumented System

Chiremsel Zakarya, Bourareche Mouloud and Nait-Said Rachid, University of Batna, Fesdis, Batna, Algeria

ID 108 The Reliability of 43D Diesel Locomotives on the Phalaborwa to Richards Bay Corridor

Theophilus Seletlo, Arnesh Telukdarie and Oliver Nwauka, University of Johannesburg, South Africa

ID 109 Evaluating the Impact of Total Productive Maintenance elements on a Manufacturing Process

Mthetheleli Joseph Kwaso and Arnesh Telukdarie, University of Johannesburg, South Africa

ID 279 Modeling and Performance Analysis of a Flexible Manufacturing Cell with Machine Failures

Abdulmajeed Dabwan, Husam Kaid, Abdulrahman M. Al-Ahmari, and Tariq Aziz, King Saud University, Saudi Arabia

ID 127 Incision Infection Risk Assessment in Laparoscopic Acute Appendectomy based on Dynamic Fault Tree

Mei Li and Zixian Liu, Tianjin University, China

8:00 – 9:30, FRIDAY**Operations Management and Operations Research****Room R03**

Session Chair: Ndala Yves Mulongo, University of Johannesburg, Auckland Park, South Africa

ID 041 A Game Theoretic Approach to Newsvendor Problems with Censored Markovian DemandParisa Mansourifard and Bhaskar Krishnamachari, University of Southern California, USA
Farzaneh Mansourifard, Alzahra University, Iran**ID 056 Outsourcing and (Theoretical) Evolutionary Biology**

Rob Dekkers, University of Glasgow, Scotland

ID 067 Using System Dynamics Approach to Examine the Impact of ERP and Lean on Manufacturing Performance

Thi Phuong Dung Ho, Arun Kumar and Nirajan Shiwakoti, RMIT University, Melbourne, Australia

ID 160 A Robust Optimization Approach for Supply Network Design under Uncertainties

Carles Sitompul, Yogi Yusuf Wibisono, and Reynold Andika, Universitas Katolik Parahyangan, Indonesia

ID 165 Analysis of Customer Satisfaction: A Case Study of the Banking Sector in South Africa

Khathutshelo Mushavhanamadi and Joy Hope Mavimbela, University of Johannesburg, South Africa

ID 166 Exploring the Significance of Service Quality in Achieving Customer Satisfaction

Khathutshelo Mushavhanamadi and Casendra Sehlare, University of Johannesburg, South Africa

8:00 – 9:30, FRIDAY**Systems Dynamics****Room R11**

Session Chair: Mahdi Bastan, University of Eyvanekey, Iran

ID 502 A System Dynamics Approach Model for Quitting Smoking Behaviour and an Analysis in Turkey

Ugur Hosyilmaz and Volkan Cakir, Istanbul Arel University, Turkey

ID 508 Analysis of Project Profitability and Schedule Overruns Using System Dynamics - A Case Study of Trigenation System

Ali Firat Elci and Volkan Cakir, Istanbul Arel University, Turkey

ID 307 Banking Soundness System: A System Dynamics ModelMohammad Bagheri Mazrae and Alimohammad Ahmadvand, University of Eyvanekey, Iran
Azam Ghezelbash, Ferdowsi University of Mashhad, Iran**ID 385 Identifying the Critical Communicational Factors Relations in EPC Projects: A DEMATEL Framework**

Sara Sajedi, Naser Shams Gharneh, Amirkabir University of Technology, Tehran, Iran

ID 393 Developing a Comprehensive and Multi-Objective Mathematical Model for University Course Timetabling Problem: A Real Case Study

Amin Jamili, Mahdi Hamid, Hassan Gharoun and Roohollah Khoshnoudi, University of Tehran, Iran

ID 435 Towards a Reliable Decision Making on Safety Barriers Performance based on Expert Judgments in the Framework of BORA Approach

Mouloud Bourareche, Zakarya Chiremsel, Rachid Nait-Said and Nouara Ouazraoui, University of Batna, Batna, Algeria

8:00 – 9:30, FRIDAY**Manufacturing Design and Servitisation****Room R25**

Session Chair: Javier Cruz-Salgado, Centro de Investigaciones en Óptica, México

ID 060 Designing ecofriendly Product-Service Systems (PSSs) through morphological reasoning

Nicolas Haber, Mario Fagnoli, Ahmad Ababneh and Massimo Tronci, Sapienza - University of Rome, Italy

ID 197 A Sequential Guillotine Cut Heuristic to Design Insulating EnvelopesAndrés F. Barco, Universidad de San Buenaventura, Colombia
Michel Aldanondo and Élise Vareilles, Université de Toulouse, France**ID 467 Development of the Industrial Model of a Phosphate Destoning Unit**

Fatima-Ezzahra Choubi and Laurent Deshayes, Mohammed VI Polytechnic University, Morocco

ID 491 Design of an Automated Dam Shutter Control System: Case Study

Ignatio Madanhire and Isheanesu Zimba, University of Zimbabwe, Zimbabwe

Charles Mbohwa, University of Johannesburg, South Africa

ID 125 Advanced Manufacturing: The Key to Future Competitiveness in the Automotive Industry

Mbongiseni Makhado and Nita Sukdeo, University of Johannesburg, South Africa

ID 078 Measuring Profilometry System Optimization

Javier Cruz-Salgado and Noé Alcalá Ochoa, Centro de Investigaciones en Óptica, México

Sergio Alvarez-Rodríguez, Instituto Tecnológico JMMPH campus Lagos de Moreno, México

9:30 – 11:00 am: FRIDAY Morning Keynote III & IV – Room R11

9:30 – 10:15 am: FRIDAY Morning Keynote III

Pascale Herman

Marketing Director

Valeo Thermal Systems Business Group

Paris, France

Charles Sagna

Thermal Academy Director

Valeo Thermal Systems Business Group

Paris, France

Presentation Title – *New Solutions for Car Interior Comfort, a Revolution in Health & Well-being, New Development Methods User Centric*

10:15 – 11:00 am: FRIDAY Morning Keynote IV

Dr. Frédéric MORET

Industrial Director of Faurecia

Paris, France

Nicolas SILVESTRE

Digital Transformation Director

Faurecia

Stéphane COUDURIER CURVEUR

Industrial Process Performance Excellence

Injection Senior Manager & Senior Expert

Faurecia - Interiors - Central Manufacturing

Méru, France

Presentation Title – *Digital Transformation of an Automotive Tier-1 Production System*

11:00 – 11:30 – Networking Break

Session – FRIDAY (July 27): 11:30 am – 1:00 pm

11:30 – 1:00, FRIDAY

Sustainability

Room B15

Session Chair: Md. Kutub Uddin, Khulna University of Engineering and Technology, Khulna, Bangladesh

ID 538 The implications of Artificial Intelligence on Soweto Furniture Manufacturing SMEs

Lawrance Seseni and Charles Mbohwa, Department of Quality and Operations, University of Johannesburg, Auckland Park, South Africa

ID 543 Literature Review: Reverse Logistics in the Plastic Manufacturing Industries for Sustainable Management of Waste in Johannesburg

Tatenda Talent Chingono, University of Johannesburg, South Africa

ID 544 Plastics Waste Reverse Logistics in Johannesburg

Tatenda Talent Chingono, University of Johannesburg, South Africa

ID 552 Determining the Numbers of Time Series Observation for Rice Crisis Forecasting

Yuyun Hidayat and Titi Purwandari, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Sri Rijati Wardiani, Department of Literature and Cultural Studies, Faculty of Cultural Sciences, Universitas Padjadjaran, Indonesia
Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 553 Integration of Quality, Health & Safety, Environment and Social accountability under a single Management System

Subrata Talapatra, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna, Bangladesh
Md. Kutub Uddin, Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna, Bangladesh

ID 556 Evaluating the role of collaboration in NPD team climate for innovation

Syeda Asiya Zenab Kazmi and Marja Naaranoja, University of Vaasa, Finland

ID 559 Overall Efficiency Improvement of a Production Line by Using Yamazumi Chart: A Case Study

Subrata Talapatra, Sharif-Al-Mahmud and Imran Kabir, Department of Industrial Engineering and Management, Khulna University of Engineering and Technology, Khulna, Bangladesh

11:30 – 1:00, FRIDAY

Product Design and Development

Room B17

Session Chair: Sudhakar D. Deshmukh, Northwestern University, USA

ID 315 An Innovative Tool to Design around Patent

Mohammad. S. Eslamipour and M.R. Moradi, Mapna Generator Co., Iran

ID 360 Stress Behaviour of Composite Materials with Natural Fibers from the South Pacific

Nicholas Lambrache, John Pumwa, Ora Renagi and Brian N'Drelan, PNG University of Technology, Morobe, Papua New Guinea
Lidia Olaru, Jesta Group, Montreal, Quebec, Canada

ID 361 Failure of Francis Water Turbines due to Flow Variations in Papua New Guinea

Nicholas Lambrache, John Pumwa, Dapsy Olatona, Mihail Ursul and Brian N'Drelan, PNG University of Technology, Morobe, Papua New Guinea

ID 462 Vendor Development Program: An Empirical Validation of Vendor Performance through Business Excellence Framework

Zarak Sh. Zamrah and Safian Sharif, University of Technology Malaysia, Malaysia

ID 033 Design of a Mobile Reciprocating Pumping System for Platinum Mines (Pneumatically Powered) - Case for Zimbabwe

Martha Simbisai Ganyani, University of Zimbabwe, Zimbabwe
Tawanda Mushiri and Charles Mbohwa, University of Johannesburg, South Africa

ID 267 New Product Quality and Timing under Competition

Sudhakar D. Deshmukh, Northwestern University, USA

11:30 – 1:00, FRIDAY

Information Technology and Safety

Room B18

Session Chair: Abdelaziz Berrado, Ecole Mohammadia d'Ingénieurs, Morocco

ID 045 Management Challenges in Product Configuration Projects

Sara Shafiee and Lars Hvam, Technical University of Denmark, Denmark
Yves Wautelet, Centre for Information Management, KU Leuven, Belgium

ID 454 Connected Vehicles using NDN for Intelligent Transportation Systems

Zakaria Sabir and Aouatif Amine, Ibn Tofail University, Morocco

ID 490 Design Improvement of Off-road Rough Uneven Rural Terrain Wheelchair

Ignatio Madanhire and Isheanesuimba, University of Zimbabwe, Zimbabwe
Charles Mbohwa, University of Johannesburg, South Africa

ID 149 Advanced Generation NIOSH Automatically Deployable Rollover Protective Structure (AutoROPS)

Khaled Alkhaled, Industrial and Management Systems Engineering Department, Kuwait University, Alkhalediya, Kuwait
 Kenneth Means, Mechanical and Aerospace Engineering Department, West Virginia University, Morgantown, West Virginia, USA
 Eugene A McKenzie, Jr., The National Institute for Occupational Safety and Health (NIOSH), Morgantown, West Virginia, USA

ID 551 A New Four-Dimensional Two-Wing Chaotic System with a Hyperbola of Equilibrium Points, its Properties and Electronic Circuit Simulation

Sundarapandian Vaidyanathan, Research and Development Centre, Vel Tech University, Avadi, Chennai, India
 Aceng Sambas, Department of Mechanical Engineering, Universitas Muhammadiyah Tasikmalaya, Indonesia
 Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
 Subiyanto, Department of Marine Science, Universitas Padjadjaran, Indonesia
 Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Kuala Terengganu, Malaysia
 Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

11:30 – 1:00, FRIDAY**Logistics, Transport and Traffic Management****Room B19**

Session Chair: Berrak Fatimazahae, Sidi Mohamed Ben Abdellah University, Morocco

ID 178 Solving the Capacitated Single Allocation Hub Location Problem Using Genetic Algorithm

Fatima Zahraa Grine, Oulaid Kamach and Naoufal Sefiani, National School of Applied Sciences of Tangier, Morocco
 Vigneshwar Pesaru, ORMAE, India

ID 191 Development of Variable Toll Pricing Strategy to Manage Traffic Congestion at Metro Manila Skyway

Queen Jean Flores, Bien Carlo Realon, Lindley Bacudio, and Giselle Joy Esmeria, De La Salle University, Philippines

ID 201 Constructive Matheuristic Algorithms for Solving the Vehicle Scheduling Problem for Public Transportation with Multiple Depots

César Augusto Marín, Luis Miguel Escobar and Rubén Bolaños, Integra S.A., Colombia
 John Willmer Escobar, Javeriana University, Colombia

ID 203 An Efficient Algorithm for Work Shift Scheduling in the Operation of Massive Transit Systems

César Augusto Marín, Luis Miguel Escobar and Rubén Bolaños, Integra S.A., Colombia
 John Willmer Escobar, University of Valle, Colombia

ID 222 Urban Distribution Center: Mathematical Model for the Location in the Center of the City of Fes

Maha Bennani, Fouad jawab and Driss Amegouz, Laboratoire Productique Energie et Developpement Durable (LPEDD) Fès, Morocco
 Abderrahman Elmhamedi and Yasmina Hani, Modélisation et Génie des Systèmes Industriels (MGSI) Montreuil, France

ID 224 The Organisation of Healthcare Transportation in Morocco: Description of the Current Situation

Berrak Fatimazahae and Fouad Jawab, Sidi Mohamed Ben Abdellah University, Morocco

11:30 – 1:00, FRIDAY**Energy and Resource Efficiency****Room B20**

Session Chair: Manasi Vyankatesh Ghamande, Vishwakarma Institute of Technology, Pune, India

ID 097 Process Centric Energy Modelling for Multinational Manufacturing Corporations

M. Munsamy, Mangosuthu University of Technology, South Africa
 A.Telukdarie, University of Johannesburg, South Africa

ID 107 Basic Considerations for Integration of Microgrid Systems

Oliver Nwauka, Arnesh Telukdarie and Johan Enslin, University of Johannesburg, South Africa

ID 296 Effects of Operational Activities on World Energy Consumption: Data Envelopment Analysis Application

Oludolapo Akanni Olanrewaju, Durban University of Technology, South Africa

ID 353 A Proposed Combined Renewable Energy System for Train

Mohammad Azazur Rahman, Mohammad Woli Ullah, Muhammad Mostafa Amir Faisal, Saif Hannan, Abdullah Al Azha and Md Mohiuddin Soliman
 International Islamic University Chittagong, Bangladesh
 Ahmed Afif Monrat, Lulea University of Technology, Sweden

ID 489 Improving Self-cleaning System for De-fouling Thermal Power Plant Heat Exchangers: Case Study

Ignatio Madanhire and Isheanesuimba, University of Zimbabwe, Zimbabwe
 Charles Mbohwa, University of Johannesburg, South Africa

11:30 – 1:00, FRIDAY**Operations Management and Operations Research****Room R03**

Session Chair: Charles Sambil Mukwakungu, University of Johannesburg, South Africa

ID 198 An Engineering Perspective on the Design of Manufacturing Organisations

Rob Dekkers, University of Glasgow, Scotland

ID 219 The Impact of Location Decision on Small, Medium, and Micro-Enterprises (SMMES) Performance in Johannesburg

Eveth Nwobodo Anyadiegwu, Alice Lumbwe Kabamba and Charles Mbohwa, University of Johannesburg, South Africa

ID 252 Applications of the Vehicle Routing Problem to Personnel Transport in Morocco

Ilham Kissani, Abderrazak El Boukili and Rida El Boustani, School of Science and Engineering, Al Akhawayn University, Ifrane, Morocco

ID 299 Supply chain Model for Deteriorating Products with Advanced Preservation Policy

Muhammad Waqas Iqbal, Biswajit Sarkar, Mitali Sarkar, Rekha Guchhait and Suman Kalyan Sardar, Hanyang University, South Korea

ID 366 The Microfinance Institutions Rating According to the Performance of their Lending Process: An Intuitionistic Fuzzy TOPSIS Evaluation

Yousef Lamrani Alaoui and Tkiouat Mohamed, Mohamed V University of Rabat Mohammadia School of Engineering, Morocco

ID 562 An Alternative Model for DEA Cross Efficiency Evaluation with Flexible Measures

Santiago Amézquita, Lina Navas and Sepideh Abolghasem, Department of Industrial Engineering, University of los Andes, Bogota, Colombia
Mehdi Toloo, Department of Systems Engineering and Informatics, Technical University of Ostrava, Prague, Czech Republic

ID 207 Keep it Simple – Using the Ishikawa to Identify Key Factors Leading to Inefficiency and Ineffectiveness of Employees and Management an Observational Study at the Largest Public Care Facility in South Africa

Charles Sambil Mukwakungu, Eveth Nkeiruka Nwobodo-Anyadiiegwu and Nonzwakazi Mntambo, University of Johannesburg, South Africa

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11:30 – 1:00, FRIDAY**Lean and Six Sigma****Room R11**

Session Chair: Raed El-Khalil, Lebanese American University, Lebanon

ID 173 Quality Improvement of Intermediate Shaft used in Steering Column through TQM: A Case Study

Ankesh Mittal and Pardeep Gupta, Sant Longowal Institute of Engineering & Technology, India

ID 359 Manufacturing Optimization -How Effective are Shop Floor Improvement Methods?

Patrick Pötters and Robert Schmitt, Quality Management at RWTH Aachen, Steinbachstraße, Germany
Bert Leyendecker, University of Applied Sciences Koblenz, Germany

ID 437 Implementation of Kanban, a Lean tool, In Switchgear Manufacturing Industry – A Case Study

Shashwat Gawande and J.S. Karajgikar, Savitribai Phule Pune University, Pune, Maharashtra, India

ID 460 On the Relationship between Lean Supply Chain Management and Performance Improvement by Adopting Industry 4.0 technologies

Guilherme Luz Tortorella, Rogério Feroldi Miorando and Carlos Ernani Fries, Federal University of Santa Catarina, Brazil
Alejandro Mac Cawley Vergara, Pontifical Catholic University of Chile, Chile

ID 487 Productivity gains through PDCA approach in an Auto Service Station

Arvind Bhardwaj, Jitendra Nagar and Rahul S Mor, National Institute of Technology, India

ID 510 Classification, Purpose, Enablers of Lean Dimensions at Automotive manufacturing Industry: A Case Study

Raed El-Khalil, Adnan Kassar School of Business, Lebanese American University, Lebanon

11:30 – 1:00, FRIDAY**Business Management****Room R25**

Session Chair: Mohammad Hassan Abolbashari, University of New South Wales, Canberra, Australia

ID 507 Relating Personality with Consumer Brand Switching: Moderating Role of Involvement and value of Service

Anjali Sharma and R.R.K. Sharma, Indian Institute of Technology-Kanpur, India

ID 110 Factorial Model Design for Business Process Variables

Medoh Chuks and Telukdarie Arnes, University of Johannesburg, South Africa

ID 111 Decision-support for Business Process Optimization Modelling Framework Based on Industry 4.0 Enablement

Medoh Chuks and Telukdarie Arnes, University of Johannesburg, South Africa

ID 124 The Influence of Leadership on Innovation: A Case Study in the Telecommunications Industry in South Africa

Pascal Adams, Hannelie Nel and Annlizé Marnewick, University of Johannesburg, South Africa

ID 282 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, Regenesys Business School, RSA
Chipo Mugova, Mancosa Graduate School of Business, RSA

ID 346 The Relationship Between Internal Andexternal Integration of Supply Chain and Operational Performance

Yandra Rahadian Perdana, Wakhid Slamet Ciptono and KUSDHianto Setiawan, Universitas Gadjah Mada, Indonesia

ID 355 Decision Making Models for Managing Performance Using Influence Diagrams: A Solution for Single vs. Multi Strategy Organizations

Mohammad Hassan Abolbashari, Atefe Zakeri and Elizabeth Chang, University of New South Wales, Canberra, Australia

1:00 – 2:30 pm – FRIDAY Networking Lunch

Session – FRIDAY (July 27): 2:30 – 4:00 pm

2:30 – 4:00, FRIDAY

Decision Analysis

Room B15

Session Chair: Sukono, Universitas Padjadjaran, Indonesia

ID 540 Employing Multiple Criteria Decision Making to Evaluate HSE Performance of Contractors Case study: Lorestan Province Gas Company

Moslem Parsa and Somayeh Taheri, Lorestan Province Gas Company, Khorramabad, Iran

Samira Taheri, Master of Business Administration, Arak Branch Islamic Azad University, Khorramabad, Iran

ID 539 A Framework to Assess a Knowledge-Based Economy: Special Focus to Higher Educational Institutions

Emad Summad¹, Mahmood Al-Kindi¹, Ahm Shamsuzzoha^{1,2}, Sujan Piya¹ and Mohammad K. Ibrahim³

¹Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Sultanate of Oman

²Department of Production, University of Vaasa, Vaasa, Finland

³Department of Information Science, Umm Al Qura University, Makkah, Saudi Arabia

ID 541 The Delphi Technique on Evaluation of Shopping Centre Classification Criteria in Malaysia

Ihfasuziella Ibrahim, Abdul Talib Bon, Abdul Hadi Nawawi and Edie Ezwan Mohd Safian, Faculty of Architecture, Planning and Surveying, UiTM, Shah Alam, Malaysia

Faculty of Technology Management & Business, UTHM, Johor, Malaysia

ID 537 Comparison of training methods based on Merrill's Principles and ELECTRE 1

Afaf Jghamou, Aziz Maziri, El Hassan Mallil and Jamal Echaabi, Research Team ERAP, National Higher School of Electricity and Mechanics, Casablanca, Morocco

ID 545 Value-at-Risk Contribution under Asset Liability Models by Using Exponential Weighted Moving Average Approaches

Sukono, Eman Lesmana and Betty Subartini, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia

Yuyun Hidayat, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 546 Comparison of Pension Fund Calculations Using Actuarial Methods of Projected Unit Credit and Pay-As-You-Go

Sukono, Mochamad Suyudi and Widya Novita Sari, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia

Yuyun Hidayat, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia

Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

2:30 – 4:00, FRIDAY

Lean and Six Sigma

Room B17

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

ID 029 Implementation of Lean Manufacturing System to Eliminate Wastes on The Production Process of Line Assembling Electronic Car Components with WRM and VSM Method, [Case Study in Production Process of Daihatsu SIGRA Type 1.5 L 3NR-Ve, DOHC Dual VVT-i]

Muhammad and Yadrifil, Fakultas Teknik - Universitas Indonesia, Indonesia

ID 155 Lean Manufacturing Application in Textile Industry

Leandro L. Lorente Leyva, Edwin P. Curillo Perugachi, Ramiro V. Saraguro Piarpuezan, Carlos A. Machado Orges, Edwin P. Ortega Montenegro and G. Javier Burgos, Universidad Técnica del Norte, Ecuador

ID 169 An Intelligent Decision Support System for SMED and Its Application in Textile Industry

Onur Dogan, Ufuk Cebeci and M. Kursat Oksuz, Department of Industrial Engineering, Istanbul Technical University, Macka, Turkey

ID 170 Data Perspective of Lean Six Sigma in Industry 4.0 Era: A Guide to Improve Quality

Onur Dogan and Omer Faruk Gurcan, Department of Industrial Engineering, Istanbul Technical University, Macka, Turkey

ID 440 Moroccan Electronic Health Record System

Houssam BENBRAHIM, Hanaâ HACHIMI and Aouatif AMINE, BOSS-Team, Systems Engineering Laboratory, National School of Applied Sciences, Ibn Tofail University, Kenitra, Morocco

ID 516 From Lean Manufacturing to Lean Enterprise 4.0: Integration of theoretical foundations emerging with Grounded Theory Method

Eldon Caldwell, University of Costa Rica, Costa Rica

2:30 – 4:00, FRIDAY

Engineering Education

Room B18

Session Chair: Pule Kholopane, University of Johannesburg, South Africa

ID 157 Jigsaw Cooperative Approach in Professional Studies: A Case of Top Technical Institute

Prabhas Bhardwaj, Anil Kumar Agrawal, Yogesh Velankar, Priya Singh⁴, Susheel Yadav, Suchit Pandey, Amit Kumar Yadav and Deepak Gautam, Indian Institute of Technology(BHU), India

ID 232 Assessing the Determinants of Cloud Computing Adoption for Educational Sector

Balkrishna Eknath Narkhede, Rakesh D. Raut and Ashok K. Pundir, National Institute of Industrial Engineering (NITIE), India
 Vaibhav S. Narwane, Veermata Jijabai Technological Institute (VJTI), India
 Bhaskar M. Bhandarkar, Indian Institution of Industrial Engineering, India

ID 284 The Potential Positive Impact of Depreciation on the Value Added Tax (VAT) in the Saudi Arabian Housing Sector

Basil Omar Al-Sasi, King Abdul Aziz University, Saudi Arabia

ID 407 Performance Analysis of MEA in Anaerobic Co-digestion using Cow Dung, Poultry Droppings and Lawn Grass

Jonathan Empompo Bambokela, Edison Muzenda and Mohamed Belaid, University of Johannesburg, Doornfontein, Johannesburg, South Africa

ID 416 Maintenance Logistics Optimization through a Strategically Focused Maintenance Resources Organization

Peter Muganyi and Charles Mbohwa, University Of Johannesburg, Johannesburg, South Africa

ID 015 An Economic Competitiveness Analysis of Power Generation Plants

Ndala Yves Mulongo and Pule Kholopane, University of Johannesburg, South Africa

2:30 – 4:00, FRIDAY**Logistics, Transport and Traffic Management****Room B19**

Session Chair: Thomas Tengen, Vaal University of Technology, South Africa

ID 231 Multimodal Transport Integration Strategy to Import Steel Slabs. A Case Study

Teresa Verduzco-Garza, Jorge Fernando Fonseca Sánchez, José Guadalupe Olvera Hernández, Bryan Raúl Rangel Martínez
 Universidad de Monterrey, Mexico

ID 386 Scheduling of Traffic Lights

Irem Unal, Hasan Can Tumantozlu, Elvan Merve Ak, Eren Turkoglu, Serol Bulkan and Banu Calis, Marmara University, Istanbul, Turkey

ID 425 RFID Application to Airport Luggage Tracking as a Green Logistics Technology

Kenza Oufaska, Yassir Rouchdi and Mohamed Boulmalf, International University of Rabat, Rabat, Morocco
 Khalid El Yassini, Moulay Ismail University, Morocco

ID 513 Risk Management for Maritime Logistics

Elifcan Göçmen, Çukurova University, Turkey

ID 519 Performance Evaluation of Logistics Enterprise Based on the Fuzzy Analytic Hierarchy Process

Yavuz Selim Özdemir and Gülsüm Bilgin, Istanbul Arel University, Turkey

ID 064 Ways on How Digital Technology Can Streamline Supply Chain Management of Today

Johannes Mapokgole and Thomas Tengen, Vaal University of Technology, South Africa

2:30 – 4:00, FRIDAY**Energy and Resource Efficiency****Room B20**

Session Chair: A. Satif, National School of Applied Sciences (ENSA), Morocco

ID 001 Bio Ethanol Production from the Landfill Organic Waste Fraction

M. M. Manyuchi, C. Mbohwa and E. Muzenda, University of Johannesburg, South Africa

ID 017 A Comparative Analysis of the Potential South African Renewable Energy Sources using Analytical Hierarchy Process

Ndala Yves Mulongo and Pule Aaron Kholopane, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 018 An Environmental Impact of Power Supply Systems: A Comparative Analysis Case Study of the South African Electricity Sector

Ndala Yves Mulongo and Pule Aaron Kholopane, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 019 A Sustainability Analysis of the South African Power Supply Systems By Means of the Weighted Sum Method

Ndala Yves Mulongo, Pule Aaron Kholopane and Clinton Aigbavboa, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa

ID 020 An Environmental Assessment of Energy Sector: A Critical Review

Ndala Yves Mulongo, Pule Aaron Kholopane and Clinton Aigbavboa, Faculty of Engineering and the Built Environment, University of Johannesburg, Auckland Park, South Africa

ID 505 Modeling and Simulation of a Photovoltaic System Connected to a Low-voltage Three-Phase Utility Grid

A. Satif and R. Elgouri, National School of Applied Sciences (ENSA), Morocco
 L. Hlou, Ibn Tofail University, Morocco

2:30 – 4:00, FRIDAY**Operations Management and Operations Research****Room R03**

Session Chair: Mark A. Gammon, Defence R&D Canada - Atlantic Research Centre, Canada

ID 320 Factors that Influence Consumer Behavior in the Purchase of Durable Household Products

Elias Thabiso Mashao and Nita Sukdeo, University of Johannesburg, South Africa

ID 444 The Impact of Employee Motivation on Productivity at a Water Treatment and Supply's Laboratory in Johannesburg, South Africa
Sambil Charles Mukwakungu, Charles Mbohwa and Elizabeth Jwalane Mpharoane, University of Johannesburg, South Africa

ID 472 Pricing Optimization and Seat Inventory Allocation for Intercity Passenger Train Services
Fransiscus R. Pratikto and Ratih Nindita, Parahyangan Catholic University, Indonesia

ID 482 Forecast for Products with a Short Life Cycle and Their Relationship with the Supply Chain

Andrés Velásquez Contreras, Universidad Autónoma de Colombia
Doctorado en Logística y Dirección de la Cadena de Suministro
Universidad Popular Autónoma del Estado de Puebla
Diana Sánchez-Partida, Universidad Popular Autónoma del Estado de Puebla., México

ID 493 Modeling and Solving A Bi-Objective Single-Period Problem within Incremental Discount in Framework of Multi-Objective Problems Approach

Mahsa Najimi and Seyed Hamid Reza Pasandideh, Kharazmi University, Iran

ID 309 A Methodology for Relative Performance Comparison of Underwater Acoustic Sensor Networks and Legacy Expendable Sonar Sensors

Mark A. Gammon and Stephane Blouin, Defence R&D Canada - Atlantic Research Centre, Canada

2:30 – 4:00, FRIDAY

Systems Dynamics

Room R11

Session Chair: Volkan Cakir, Istanbul Arel University, Turkey

ID 089 Addressing the Challenge of Lean Manufacturing Sustainment with System Dynamics Modeling: A Case Study on Apparel Manufacturing in a Developing Country

Marc Haddad and Rami Otayek, Lebanese American University, Lebanon

ID 119 Assessing the Customer Value Generation in the Electricity Utility Industry

Lina Astrid Carvajal-Prieto and Milton M. Herrera, Universidad Piloto de Colombia, Colombia
Mauricio Uriona, Federal University of Santa Catarina, Brazil

ID 418 A System Dynamics Model of Energy Dependency

Mahdi Bastan, University of Eyvanekey, Garmsar, Iran
Hamde Shakouri G., University of Tehran, Tehran, Iran

ID 453 Modeling Infectious Disease in Healthcare Problems for the Medical Systems Improvement in Bangladesh

Mst. Shanta Khatun, Uzzwal Kumar Mallick and Md. Haider Ali Biswas, Khulna University, Bangladesh

ID 548 A New Jerk Chaotic System with Three Nonlinearities and Its Circuit Implementation

Agus Supriatna, Kankan Parmikanti, Lita Novita, Sukono and Betty Subartini, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 500 Forecasting Air Passenger Demand with System Dynamics under Terrorism Threat

Volkan Cakir, Istanbul Arel University, Turkey
Sait Oguz, Hezarfen Aeronautics and Space Technologies Institute, Turkey

2:30 – 4:00, FRIDAY

Business Management

Room R25

Session Chair: José Leandro Miguel Neto, Universidade Lusófona de Humanidades e Tecnologias, Portugal

ID 043 Relating Innovation Strategy Types to Culture

RRK Sharma, Indian Institute of Technology Kanpur, India

ID 174 Smart Grid: A Managerial Perspective

RRK Sharma and Kamini Singh, IIT Kanpur, India

ID 277 Designing Framework for Development of Lean ERP System

Abdulwahab Al Maimani, Al Muhandis Integrated Services, Oman

ID 341 Challenges Facing Women Entrepreneurs in New Business

Iman Youssef, William Howard Taft University, United States
Daw Alwerfalli, Lawrence Technological University, United States

ID 573 Searching avenues for excellence- An analytical review on Finland's healthcare sectoral reformation

Syeda Asiya Zenab Kazmi and Marja Naaranoja, University of Vaasa, Finland

ID 027 The Integration of Marketing and Production Areas and its Impact on Organizations

José Leandro Miguel Neto, Universidade Lusófona de Humanidades e Tecnologias, Portugal

4:00 – 4:30 pm: Networking Break

Session – FRIDAY (July 27): 4:30 – 6:30 pm

4:30 – 6:30, FRIDAY Knowledge Management Room B15

Session Chair: Daw Alwerfalli, Lawrence Technological University, United States

ID 342 Strategic Leadership and Knowledge Management “Driving Organizational Success

Iman Youssef, William Howard Taft University, United States
Daw Alwerfalli, Lawrence Technological University, United States

ID 171 The Factors Affecting Knowledge Sharing Intention and Mediating Effect of Transactive Memory System

Omer Faruk Gurcan, M. Kursat Oksuz and Onur Dogan, Istanbul Technical University, Turkey

ID 331 Integrated Knowledge Loss Risk Management Model in the Project Environment

Shteynbrekh Daria, National Aerospace University, Ukraine

ID 093 A Cross-Border E-Commerce Logistics Optimization Model

Pei-Ju Wu, Jung-Hsuan Chang, and Ping-Yu Su, Feng Chia University, Taiwan

ID 302 Internet of Things for Different Types of Retail Formats

Vinayak A. Drave and RRK Sharma, IIT Kanpur, India

ID 142 Simulation Based Study of Safety Stocks under Short-Term Demand Volatility in Integrated Device Manufacturing

Oliver Alcalde Fernández and Funlade Sunmola, School of Engineering and Technology, University of Hertfordshire, College Lane, Hatfield, UK

ID 517 Influence of Experiential Learning on Education of Construction Students in South Africa

Clinton O. Aigbavboa, Michael G. Oladokun and Mokgadi D. Kgoadi, University of Johannesburg, South Africa

ID 528 Industrial Engineering Education Field in Colombia

Luisa Fernanda Rodríguez Valbuena, Unité Mixte de Recherche Education, Formation, Travail, Savoirs, École Doctorale CLESCO - Université Toulouse Jean Jaurès, France

4:30 – 6:30, FRIDAY Logistics, Transport and Traffic Management Room B17

Session Chair: Boutaina Hajjar, Mohammadia School of Engineers - Mohammed V University, Morocco

ID 223 Hospital Logistics: An Effective Tool in Improving the Quality of Care

Youness Frichi, Fouad Jawab and Said Boutahari, Sidi Mohamed Ben Abdellah University, Morocco

ID 225 Measuring and Improving Public Bus Transport Performance in Largest Morocco's Cities

Zehmed Karim, Fouad Jawab, Imane Moufad, Youness Frichi, Kawtar Akoudad and Nassima Laaraj, Sidi Mohamed Ben Abdellah University, Fez-Morocco

ID 392 Queuing Model for Improving Airport Passengers Treatment Process

Fouad Jawab, Mohammad Khachani and Kawtar Akoudad, College of Technology, Road of Imouzzar, Fez, Morocco

ID 394 Time Series to Improve Sales Planning in a Supply Chain - Case Study

Kawtar Akoudad and Fouad Jawab, College of Technology, Road of Imouzzar, Fez, Morocco

ID 432 A New Formulation of Capacitated Plant Location Problem

RRK Sharma and Ajay Jha, Indian Institute of Technology, Kanpur, India

ID 468 Success Factors for Developing Air Cargo in African Markets

Boutaina Hajjar and Omar Drissi Kaitouni, Mohammadia School of Engineers- Mohammed V University, Morocco

ID 486 A Locating-Routing Model for Hazardous Materials Transport Planning based on Time Value of Money for Establishing and Operating Costs (Case study: Northwest Area of Iran)

Hamideh Baghaei Daemi and Abbas Mahmoudabadi, MehrAstan University, Iran
Roosbeh Azizmohammadi, Payame Noor University, Iran

ID 499 How to Distribute Hazmat Transport Risk over the Intercity Network? An Empirical Study

Mahdieh Mahmoudabadi, Sharif University of Technology, Iran
Abbas Mahmoudabadi, Mehrastan University, Iran
Nillofar Afifi Kisomi, Mehrastan University, Iran
Arash Gholami, Islamic Azad University, Iran

4:30 – 6:30, FRIDAY Lean and Six Sigma Room B18

Session Chair: Abdullah Al-Amri, University of Strathclyde, UK

ID 194 Two Explorative Case Studies into the Role of Regional

Mohammed A. Aldossary and Rob Dekkers, University of Glasgow, Scotland

ID 211 Lean Manufacturing and Urgent Orders: How It Works?

Mariam Houti, Laila El Abbadi and Abdellah ABOUABDELLAH, Ibn Tofail University, Morocco

ID 214 The Integration of Lean Manufacturing Tools in the Industry 4.0

Said El Manti, Laila El Abbadi and Nabil HMINA, Ibn Tofail University, Morocco

ID 228 Lean Six Sigma Application to Improve a Human Resources Process: A Case Study in a Commercial and Service Company in Mexico

Luz María Valdez de la Rosa, Daniela Garza Gutiérrez and Paulina Hoyos Benítez, Universidad de Monterrey, México

ID 243 Evaluation of Lean Six Sigma Implementation at Healthcare Sectors: A case Study of Two Tertiary Hospitals in Oman

Yousuf Nasser Al Khamisi, M. Khurshid Khan and J. Eduardo Munive-Hernandez, University of Bradford, Bradford, UK

ID 410 Assembly Line Re-Balancing

Lamia A. Shihata, Faculty of Engineering, Design and Production Engineering Department, Ain Shams University, Egypt
Gasser Yassen, Industrial Engineering Research Group, German University in Cairo, Egypt

ID 571 Assessing the Corporate Obligation of Proactive Procurement of Business Services

Syeda Asiya Zenab Kazmi, University of Vaasa, Finland

ID 417 Why Lean Six Sigma Implementation is still so Limited in Higher Education?

Abdullah Al-Amri, University of Strathclyde, UK

4:30 – 6:30, FRIDAY**Logistics, Transport and Traffic Management****Room B19**

Session Chair: Jenny Díaz Ramírez, University of Monterrey, Mexico

ID 065 Development of a System for Reducing Traffic Congestion in South African Metropolitans

Johannes Mapokgole and Thomas Tengen, Vaal University of Technology, South Africa

ID 069 Maximization of Profits in Import Activities through a Hybrid Algorithm based on Fictional Games with Multiple Suppliers

Adriana Moros Daza, Carlos Paternina and Carlos Otero, Universidad del Norte, Barranquilla, Colombia

ID 099 Evaluation of the Electric Bicycle as an Alternative Mobility in the City of Cuenca, Ecuador

Gustavo Alvarez, Mateo Coello, Andrés López and Santiago Ordoñez, Universidad del Azuay, Ecuador

ID 206 Patient Satisfaction Factors and Their Correspondence with Hospital Logistics Activities

Youness Fricchi, Fouad Jawab and Said Boutahari, Sidi Mohamed Ben Abdellah University, Morocco

ID 213 The Dynamic Simulation of the Urban Traffic: A Literature Review

Imane Moufad and Fouad Jawab, Sidi Mohamed Ben Abdellah University - EST, Morocco

ID 217 The Extent of the Urban Freight Transport System on the Road Safety

Nassima Laaraj, Imane Moufad and Fouad Jawab, Sidi Mohamed Ben Abdellah University - EST, Morocco

ID 070 Increase of Fuel Efficiency in a Passenger Road Transportation Company

Jenny Díaz Ramírez, Laura Armendáriz Santinelli, María Fernanda Salcedo Junco and David Castaños Güitrón, University of Monterrey, Mexico

4:30 – 6:30, FRIDAY**Energy and Resource Efficiency****Room B20**

Session Chair: Balkrishna Narkhede, National Institute of Industrial Engineering, India

ID 013 Developing a Knowledge-Based Lean Six Sigma Model to Increase the Effectiveness of Healthcare Organisational Resources Management

Yousuf Nasser Al Khamisi, J. Eduardo Munive-Hernandez and M. Khurshid Khan, University of Bradford, UK

ID 014 A New Perspective for Ranking under a DEA Cross-Evaluation Setting

Amar Oukil, Sultan Qaboos University, Oman

ID 058 Hybrid Wind & Solar LED Streetlight

Fayez Aldawi, Yanbu Industrial College, Saudi Arabia

ID 059 Energy Performance of Insulation Material in Houses and Buildings

Fayez Aldawi, Yanbu Industrial College, Saudi Arabia

ID 101 Developing an Effective Maintenance Policy for Control Gates in Hydroelectric Power Plants

M. Burak Aktel and Demet Ozgur-Unluakin, Bahcesehir University, Turkey

ID 527 A Study on Benefits and Barriers of Implementing Building Information Modelling (BIM) in Malaysian Construction Industry

Mazri Yaakob, Jessie James, Mohd Nasrun Mohd Nawi and Kamaruddin Radzuan, Universiti Utara Malaysia, Malaysia

ID 182 Techno-Commercial and Compatibility Analysis of Energy Efficient Technologies in HVAC for Indian Scenario

Parth Mehta and Juneda Sayed, Production Engineering Department, Veermata Jijabai Technological Institute, Matunga, Mumbai 400019, India
 Balkrishna Narkhede, Industrial Engineering & Manufacturing Systems, National Institute of Industrial Engineering, Powai, Mumbai 400087, India
 Mandar Tendolkar, Mechanical Engineering Department, Veermata Jijabai Technological Institute, Matunga, Mumbai 400019, India

ID 326 Factors that Affect Implementation of Green Public Procurement in Local Government: A Case Study in the City of Johannesburg Municipality

Ernest Mutenda and Pule Kholopane, University of Johannesburg, South Africa

4:30 – 6:30, FRIDAY**Decision Sciences****Room R03**

Session Chair: H.C.C. Ho, The Hong Kong Polytechnic University, China

ID 074 Proposal of Model on Preventive Measures to Landslide Disaster Occurrences in Penang State, Malaysia

Mohamad Ghazali Hassan, Che Azlan Taib and Muslim Diekola Akanmu, Northern University of Malaysia
 Ahmad Afif Ahmarofi, Northern University of Malaysia, Malaysia

ID 240 Using a Data Mining CRISP-DM Methodology for Rate of Penetration (ROP) Prediction in Oil Well Drilling

Djamil Rezki and Leila Hayet Mouss, Batna 2 University, Algeria
 Abdelkader Baaziz, Université d'Aix-Marseille, France

ID 325 Desirability Function Approach for Selection of Facility Location: A Case Study

Prasad Karande, Veermata Jijabai Technological Institute, India
 Prasenjit Chatterjee, MCKV Institute of Engineering, India

ID 415 Optimal Weighting Method for Fuzzy Opinions

Mohamed El Alaoui, Hussain Ben-Azza and Khalid El Yassini, Moulay Ismail University, Meknes, Morocco

ID 450 Relative bibliometrics of intellectual capital and knowledge management in SCOPUS

Samia Aitouche, Hanane Zermane, Mawloud Titah, Naima Zerari, Khaled Latreche and Abdelghafour Kaanit, Laboratory of Automatics and Manufacturing, Industrial Engineering Department, University Batna 2, Algeria

ID 526 Application of Big Data Analytics for Recommending V93K Tester Platform Focus Area with High Test Time and Index Time Deviation

Romero Sunshine Ander, Koh Mei Hwei and Tang Ho Hwa, Infineon Technologies Asia Pacific Pte. Ltd, Singapore

ID 529 Design of a Global Sourcing Strategy to Reduce Assembly Components Cost: A Case Study

Teresa Verduzco-Garza, Marcos Cisneros, Francisco Lopez and Daniela Santiago, Universidad de Monterrey, Mexico

ID 306 A Study on the Effects of the Future Value of Fares for Airline Revenue Management

H.C.C. Ho and F.C.K. Yeung, The Hong Kong Polytechnic University, China

4:30 – 6:30, FRIDAY**Sustainable Manufacturing****Room R11**

Session Chair: Saida Kitouni, Constantine 3 University, Algeria

ID 259 The Criteria of Sustainable Product Development and Organizational Performance

Hj Mohd Akhir Hj Ahmad, University Utara Malaysia, Malaysia

ID 380 Sustainable Modular Design for Enhanced Remanufacturing-Product Service System

Leslie Monplaisir, Wayne State University, Detroit, United States

ID 388 Comparative Assessment of Conventional and Alternative Leather Tanning Processes from a Life Cycle Perspective

Zia Uddin Md. Chowdhury, Md. Ariful Islam Juel, and Md. Abul Hashem, Khulna University of Engineering & Technology, Khulna, Bangladesh

ID 103 Corporate Digital Preparedness: A Case Study for a South African Private Organization

Bertine Mulombo Mujinga and Nita Sukdeo, University of Johannesburg, South Africa

ID 518 Impact of Culture on Construction Education in South Africa

Michael G. Oladokun, Clinton O. Aigbavboa and Mokgadi D. Kgoadi, University of Johannesburg, South Africa

ID 524 An Environmental Concrete with Algerian Concrete

Saida Kitouni, Constantine 3 University, Algeria

ID 555 Experimental Optimization of Fused Deposition Modeling Process Parameters: A Taguchi Process Approach for Dimension and Tolerance Control

Isksiou Hamza and El Gharad Abdellah, M2SM, STIS, Department of Mechanical Engineering, ENSET, UM5, Rabat, Morocco
 Oubrek Mohamed, PCMT, STIS, Department of Mechanical Engineering, ENSET, UM5, Rabat, Morocco

4:30 – 6:30, FRIDAY**Waste Management****Room R25**

Session Chair: Debadyuti Das, University of Delhi, India

ID 002 Bio Stabilization of Jatropha Curcas Cake to Bio Fertilizers through Vermicomposting

M. M. Manyuchi, C. Mbohwa and E. Muzenda, University of Johannesburg, South Africa

ID 161 Waste Reduction through Reallocation of Goods in Food Retail Companies

Larissa Janssen and Alfred Wulff, Jade University of Applied Sciences, Germany

Jürgen Sauer, Carl von Ossietzky University of Oldenburg, Germany

ID 286 Discharge Times of Ultrafine and Superfine Powders in a Short Riser Circulating Fluidized Bed at Different Humidification Conditions

Emad Abdelghani, El-Minia University, Egypt

Mohammed Hakami, Yanbu Industrial College, Saudi Arabia

ID 459 Life Cycle Assessment, Optimization and Multi Criteria DM Models Facing Waste Management Problems Literature Review

Elham Rezaee, Abbas Ahmadi and Kaveh Mohammad Cyrus, Amirkabir University of Technology (Tehran Polytechnic), Iran

ID 476 Biogas and Bio Solids Production from Tea Waste through Anaerobic Digestion

M. M. Manyuchi, C. Mbohwa and E. Muzenda, University of Johannesburg, South Africa

ID 188 Quantifying the Life Cycle Cost of a High Pressure Grinding Roll in a Mineral Processing Plant

Njabulo Buthelezi, Annlizé Marnewick and Hannelie Nel, University of Johannesburg, South Africa

ID 262 5S Implementation in Workplace - A Conducive Environment Enhancing Motivation in Educational Institutions

Ashok G Verghese, K.Viswanathan and Pon Ramalingam, Hindustan Institute of Technology and Science Chennai, India

7:00 pm – 10:00 pm, FRIDAY, July 27, 2018

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Distinguished Speakers – Industry Solutions

Friday, July 27, 2018

Session I: Industry Solutions

8:00 – 9:30 am (Friday) – Room B15

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

8:00 – 8:25 (Friday)



Foad Hosseinkhanli

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

Certified Master Black Belt
Certified Scrum Master
Certified Quality Assurance Engineer

Risk assessment made easy in Health care industry by applying Lean Six Sigma Methodology

Mr. Hosseinkhanli is Director of Quality Assurance, Performance and Business Improvement at 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. He 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. He is Certified Business Analyst from International Profit Association in Buffalo Grove IL USA. Certified Six Sigma Green and Black Belt from Institute of Industrial Engineers, , Certified Master Black Belt, Certified Scrum Master and Certified Quality Assurance Engineer.

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.

8:25 – 8:50 (Friday)



Aaron Burciaga

Vice President Data Science & Machine Intelligence
Booz Allen Hamilton
Washington D.C., USA

When the Signal IS the Noise: Impending ubiquity and opportunity of sensors and machine intelligence on the edge

Aaron Burciaga is a data scientist and leader in Booz Allen's defense business, focusing on the application of descriptive, predictive, and prescriptive forms of analysis to drive strategic decision making and millions of dollars in cost savings for his clients. In his more than 15 years of experience, Aaron has shaped commercial, federal, and Department of Defense strategies in data analytics, inventory management, requirements forecasting, maintenance planning, transportation networks, energy planning, organizational analytics maturity assessments, and much more.

Aaron is a sought-after speaker, sharing thought leadership and training at the crossroads of his technical interests: advanced analytics, machine intelligence, global logistics, and information management.

Prior to joining Booz Allen, Aaron worked at Accenture Digital - Advance Analytics as an analytics executive. Before turning his attentions to commercial and public sectors, Aaron was a Marine Corps officer and Iraq war veteran, and was the head operations research analyst and director of an operations analysis activity at the Pentagon, supporting the Marine Corps Headquarters. He is currently a Marine reservist, supporting the Chief Information Officer at Headquarters Marine Corps-Pentagon as the Big Data Analytics Architect.

Aaron graduated from the U.S. Naval Academy in 2003 and earned his M.S. in Operations Research from the Naval Postgraduate School in 2010. He is also a Certified Analytics Professional.



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

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

Dr. Abdul Talib Bon is Professor of Technology Management in Department of Production and Operations Management, Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008.

His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration major in Quality Management at the master's level in the Universiti Kebangsaan Malaysia for which he was awarded 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 Director of Teaching Factory and Manager of Centre for Technology (Furniture Innovation Technology) from 1 September 2016 and Head of Program Bachelor of Technology Management (Furniture Design and Manufacturing) with Honours from 2014 until 2017. Before this he was the Deputy Dean (Research and Development) at the Faculty of Technology Management and Business in the Universiti Tun Hussein Onn Malaysia from 2008 until December 2011. Dr. Abdul Talib Bon has had over 30 year experience of teaching in higher learning education. A major part of his teaching experience involves teaching mechanical engineering students in polytechnics. However, from the year 1999, he was given the opportunity to be jointed in the Institut Teknologi Tun Hussein Onn (ITTHO), Universiti Teknologi Malaysia as a lecturer in Mechanical Engineering Department. In this institute, he teaches engineering management and quality control at the under-graduate level. Dr. Abdul Talib Bon has multidisciplinary research interests that encompass industrial engineering, quality management and production and operation management. His completed 17 research grant projects as project leader include applications of forecasting in industries. His current research project is looking into developing process quality improvement (PQI) in manufacturing industries. He has supervised more than 90 undergraduate and postgraduate research projects. He has served as a reviewer for a number of engineering management and computer science conferences and journals as part of his expertise sharing initiatives. He had published more than 180 International Proceedings and International Journals and 8 books. He is also Fellow and President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), Professional Technologist of Malaysia Board of Technologists (MBOT), Council member of Management Science and Operation Research Society of Malaysia (MSORS), member of International Association of Engineers (IAENG), member of Institute of Industrial Engineer (IIE), USA, member of International Institute of Forecasters (IIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).

9:10 – 9:30 (Friday)



Dr. William Msekiwa Goriwondo (PhD, FZ'weIE, Pr.Eng., MloDZ)
 Executive Dean
 Faculty of Industrial Technology
 National University of Science and Technology (NUST)
 Zimbabwe

Industry – Academia partnerships in enhancing engineering education in Zimbabwe. Case Study of the National University of Science and Technology (NUST) in Zimbabwe

Dr. WM Goriwondo is a registered Professional Engineer with an MSc. degree in Manufacturing Systems & Operations Management as well as a Doctor of Philosophy (PhD) degree. He has a proven track record of technical, operational and strategic leadership, spanning over 20 years. Currently the Executive Dean of the Faculty of

Industrial Technology at the National University of Science and Technology (NUST), a Senior Lecturer, Researcher and an Engineering & Management Consultant. Member of the Institute of Directors Zimbabwe (IoDZ), Fellow and Board member of the Zimbabwe Institution of Engineers (ZIE). He is an experienced Project Manager and team player with advanced strategic planning skills. A published researcher with over 10 peer reviewed journal papers, 40 peer reviewed papers in conference proceedings and several other technical newspaper articles. He is a passionate leader in manufacturing excellence, resource utilization and World Class Manufacturing (WCM).

Abstract

Engineering education is important in providing solutions to problems that face humankind. Zimbabwe has gone through a period of economic decline characterised by myriad of challenges, some of which requires engineering solutions. It is only when the quality of engineers from educational institutions is of high quality, that any such problems can be resolved. This paper presents the journey that the National University of Science and Technology (NUST) in Zimbabwe took towards improving engineering education. A two year project sponsored by the Royal Academy of Engineering (RAE), UK, saw NUST as a hub institution in Sub-Saharan Africa working with several spoke institutions in both Industry and Academia. The project sought to develop and strengthen relationships between academia and industry through secondment programmes to bridge skills and knowledge deficiencies. This was achieved through secondment of junior lecturers to industry, as well as skilled industrial players to the NUST. Knowledge sharing and skills transfer was achieved during this project, ultimately leading to improved engineering education. Relevance of engineering programmes at the NUST was also reviewed and improvements implemented. This will result in sustainable engineering educational changes and industry ready engineers. Important networks were established and these are key to sustainability.

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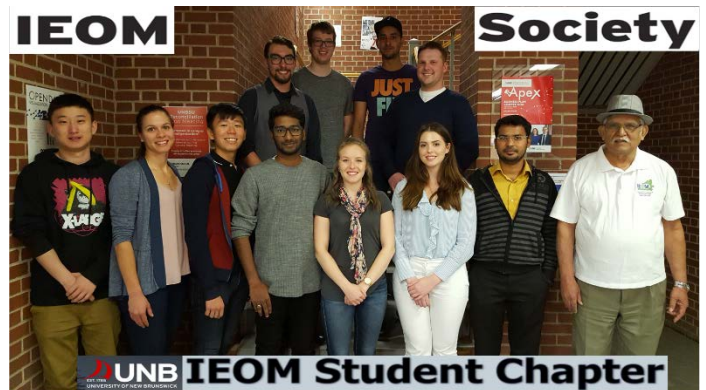
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Nepal

47. Kathmandu University
48. Tribhuvan University

Oman

49. Sultan Qaboos University

Pakistan

50. Dawood University of Engineering and Tech, Karachi
51. Government College University Faisalabad
52. Mehran Univ. of Engineering and Tech, Jamshoro, Sindh

Peru

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

Philippines

54. LPU Laguna

Qatar

55. Qatar University

Saudi Arabia

56. Alfaisal University
57. Effat University
58. King Abdulaziz University (KAU)
59. King Fahd University of Petroleum and Minerals (KFUPM)
60. King Saud University (KSU)
61. Prince Sultan University

South Africa

62. Tshwane University of Technology (TUT)
63. University of Johannesburg (UJ)
64. University of South Africa (UNISA)
65. Vaal University of Technology (VUT)

Sri Lanka

66. University of Kelaniya
67. University of Peradeniya

Sudan

68. Sudan University of Science and Technology, Khartoum

UK

69. University of Derby
70. University of the West of England (UWE), Bristol

USA

71. Central Connecticut State University
72. Eastern Michigan University
73. Lawrence Technological University, Michigan, USA

Venezuela

74. Catholic University Andrés Bello (UCAB), Caracas

Zimbabwe

75. University of Zimbabwe, Harare

High School / Middle School Student Chapters

76. Bay Area of San Francisco & San Jose, California, USA

Upcoming Conferences

IEOM 3rd North American Conference on
Industrial Engineering and
Operations Management
Washington DC, USA, Sept. 27-29, 2018
IEOM Society Venue: University of the District of Columbia



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www.ieomsociety.org/dc2018/

IEOM International Conference on
Industrial Engineering &
Operations Management
Pretoria/Johannesburg, South Africa
IEOM Society October 29 - November 1, 2018



www.ieomsociety.org/southafrica2018/

9th IEOM International Conference

JW Marriot Hotel, Bangkok, Thailand, March 5-7, 2019

Conference Website: www.ieomsociety.org/ieom2019/

IEOM 9th International Conference on
Industrial Engineering and
Operations Management
March 5-7, 2019, Bangkok, Thailand
IEOM Society Venue: JW Marriot Bangkok



IEOM 3rd IEOM European Conference
on Industrial Engineering and
Operations Management
Organisers: July 23-25, 2019

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West of
England



Pilsen, Czech Republic – July 2019

www.ieomsociety.org/pilsen2019/