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IEOM Society

Achieving and Sustaining Operational Excellence

www.ieomorganization.org

IEOM Society International
Welcome to the Ninth IEOM Annual International Bangkok Conference

To All Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to Bangkok, Thailand and the Ninth Annual International Conference on Industrial Engineering and Operations Management. This unique international conference provides a forum for academics, researchers and practitioners from many industries to exchange ideas and share recent developments in the field of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. There were more than 700 papers/abstracts submitted from 60 countries and after a thorough peer review process, approximately 450 have been accepted. The program includes many cutting edge topics of industrial engineering and operations management.

This conference will address many of the issues concerning continuous improvement for quality and service. Our keynote speakers will address some of these issues:

- Dr. Adedeji Badiru, Dean, Graduate School of Eng. and Mngt., Air Force Institute of Technology, Wright-Patterson, USA
- Dr. Devdas Shetty, Dean, School of Eng. and Applied Sci., University of the District of Columbia, Washington, DC, USA
- Dr. George G.Q. Huang, Chair Professor and Head, Industrial and Manufacturing Systems Eng., University of Hong Kong
- Dr. Zhi Li (Piers), Associate Professor in School of Electromechanical Eng., Guangdong University of Technology, China
- Mr. Anurat Suthamniurn, Executive VP, Corporate Food Processing & Engineering, CPF (Thailand)
- Dr. Thumrongrut MUNGCHAROEN (RUTT), Chairperson of Energy and Environment Cluster, National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, Thailand, Kasetsart University, Bangkok
- Mr. Dieter Broeckl, Sr. VP & Head of Digital Factory (DF) / Process Industry & Drive (PD) Division, Siemens Limited Thailand
- Dr. Chen-Fu Chien, Tsinghua Chair Professor, Department of Industrial Engineering & Engineering Management, National Tsing Hua University, Convener, Industrial Engineering and Management Program, Ministry of Science & Technology
- Dr. Josu Takala, Professor, Industrial Management and Materials Management, University of Vaasa, Vaasa, Finland
- Dr. Robert de Souza, Executive Director, The Logistics Institute – Asia Pacific, National University of Singapore

We will continue to offer a special session on 13th Global Engineering Education Series. This session will feature distinguished speakers who will discuss the workforce readiness and engineering education challenges and opportunities. The Industry Solutions will showcase best industry practices and share their experiences.

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

Chiang Mai University, conference host, welcomes all participants to Thailand. We are delighted to have you visit our county and participate in the IEOM Society International Conference in Bangkok. We are very pleased that industry is well represented at this event. Their involvement adds much value to our program. Chiang Mai University would like to acknowledge all of the student participants for their workshop presentations at this international event. Please take time to enjoy Bangkok and all that it has to offer with its diverse culture, rich history and exceptional cuisine.

Lastly, my sincere best wishes to you all for a successful conference and an enjoyable stay in Bangkok.

Enjoy the conference!
Conference Program

March 4, 2019 (Monday)
13:00 – 20:00 Registration – Foyer Area

March 5, 2019 (Tuesday)
07:00 – 17:00 Registration – Foyer Area
08:00 – 09:30 Parallel Sessions - Breakout Rooms 1-8
09:30 – 09:40 Welcome Address - Dr. Nat Vorayos, Dean, Faculty of Engineering, Chiang Mai University, Thailand - Ballroom
09:40 – 10:20 Opening Keynote I: Dr. Adedeji Badiru, Dean, Graduate School of Engineering and Management, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA – Ballroom
10:20 – 11:00 Opening Keynote II: Dr. Devdas Shetty, Dean, School of Engineering and Applied Sciences, Professor of Mechanical Engineering, University of the District of Columbia, Washington, DC, USA – Ballroom
11:00 – 11:30 Networking Break
11:30 – 13:00 Parallel Sessions – Breakout Rooms 1-8
13:00 – 14:30 Networking Lunch Buffet - Ballroom
13:40 – 14:00 Tuesday Lunch Keynote: Prof. George G.Q. Huang, Chair Professor and Head, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong – Ballroom
Dr. Zhi Li (Piers), Associate Professor in School of Electromechanical Engineering, Guangdong Univ of Tech (China) and Deputy Director of National Local Joint Engineering Laboratory for Manufacturing IoT Technology
14:30 – 16:00 Parallel Sessions – Breakout Rooms 1-8
16:00 – 16:30 Networking Break
16:30 – 18:00 Parallel Sessions - Breakout Rooms 1-8
18:00 – 20:00 Poster Session, Sr. Design Poster Competition, Student Chapter Presentations and Faculty Position Networking
20:00 – 22:00 IEOM Global Council Meeting

March 6, 2019 (Wednesday)
07:00 – 17:00 Registration – Foyer Area
08:00 – 09:30 Parallel Sessions - Breakout Rooms 1-8
09:40 – 10:15 Wednesday Keynote I: Mr. Anurat Suthamniurn, Executive Vice President, Corporate Food Processing & Engineering, CPF (Thailand) Public Company Limited, Silom , Bangkok, Thailand – Ballroom
10:15 - 11:00 Wednesday Keynote II: Prof. Dr. Thumrongrut MUNGCHAROEN (RUTT), Chairperson of Energy and Environment Cluster, National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, Thailand, Kasetsart University, Bangkok, Thailand- Ballroom
11:00 – 11:30 Networking Break
11:30 – 13:00 Parallel Sessions - Breakout Rooms 1-8
13:00 – 14:30 Networking Lunch Buffet – Ballroom
13:40 – 14:00 Wednesday Lunch Keynote: Mr. Dieter Broeckl, Senior Vice President and Head of Digital Factory (DF) / Process Industry and Drive (PD) Division, Siemens Limited Thailand- Ballroom
14:30 – 16:00 Parallel Sessions – Breakout Rooms 1-8
16:00 – 16:30 Networking Break
16:30 – 18:00 Parallel Sessions - Breakout Rooms 1-8
19:00 – 19:40 Awards Keynote - Dr. Robert De Souza, Executive Director, The Logistics Institute - Asia Pacific, NUS, Singapore
19:30 – 19:40 Awards Keynote - Dr. Robert De Souza, Executive Director, The Logistics Institute - Asia Pacific, NUS, Singapore

March 7, 2019 (Thursday)
07:00 – 17:00 Registration – Foyer Area
08:00 – 09:30 Parallel Sessions - Breakout Rooms 1-8
09:40 – 10:20 Thursday Morning Keynote I: Dr. Chen-Fu Chien, Tsinghua Chair Professor, Department of Industrial Engineering & Engineering Management, National Tsing Hua University, Convener, Industrial Engineering and Management Program, Ministry of Science & Technology and Director, Artificial Intelligence for Intelligent Manufacturing Systems Research Center, Ministry of Science & Technology, Hsinchu, Taiwan - Ballroom
10:20 - 11:00 Thursday Morning Keynote II: Dr. Josu Takala, Professor, Industrial Management and Materials Management, University of Vaasa, Vaasa, Finland - Ballroom
11:00 – 11:30 Networking Break
11:30 – 13:00 Parallel Sessions - Breakout Rooms 1-8
13:00 – 14:30 Networking Lunch Buffet - Ballroom
13:40 – 14:00 Thursday Lunch Keynote: Mr. Don Reimer and Dr. Ahad Ali - Ballroom
14:30 – 16:00 Parallel Sessions – Breakout Rooms 1-8
16:00 – 16:30 Networking Break
16:30 – 18:00 Parallel Sessions - Breakout Rooms: 1-8
18:00 – 19:00 How to Prepare for Higher Studies – Professor Don Reimer and Dr. Ahad Ali - Ballroom
Dr. Nat Vorayos
Dean, Faculty of Engineering
Chiang Mai University, Thailand

Nat Vorayos has been working for Chiang Mai University since 1992 in the department of Mechanical Engineering right after his graduation. Supported by Royal Thai Government’s Scholarships, he continued his graduate degrees in Aeronautics and Mechanical Engineering at California Institute of Technology and Oregon State University, respectively. He previously served Chiang Mai University as a head of department of Mechanical Engineering and the deputy to the president in Research and Student Affairs. In 2010, he became the Vice President of Chiang Mai University and was responsible for research and academic services where he co-established Chiang Mai University’s Sciences and Technology Park to support innovation and new businesses in the northern region of Thailand. He continued his administrative career as the Vice President in Physical Facilities and Environment during 2012-2016 when the fleet of electric shuttle-bus was deployed throughout the campus as a part of campus of sustainable planning fulfilling part of CMU’s and his goals in sustainability. Nat Vorayos is a registered professional engineer (PE) in Civil Engineering and is responsible for the construction and management of 32 degree programs in 7 departments ranging from undergraduate to doctorate degrees. With the research and academic strengths in Renewable Energy, Energy Management, Thermal Sciences, Logistics, Supplies Chain and Transportation, Life Cycle Assessment of Product and Management, Power Engineering, and Disaster Management, the faculty has engaged and served the industries and the communities throughout the regions. Over 3800 engineering students is under his supervision daily. He has engaged in the sustainable energy systems and led research and academic service projects including bio-energy power systems and community-based, combined heat, power, and cooling systems. He also established the strong collaboration with the alumni association whose eight thousands registered members have currently embedded into engineering communities. He has also served the Engineering Dean Council of Thailand as the Vice President and worked closely with Engineering Institute of Thailand under the H.M. The King’s patronage where he was the chair of norther office during 2013-2016 and the Council of Engineers. Nat Vorayos has been awarded the distinguished administrative decoration from Chiang Mai University in 2015.

Dr. Adedeji Badiru
Dean, Graduate School of Engineering and Management
Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA

Achieving and Sustaining GLOBAL Operational Excellence through Systems Engineering

Dr. Deji Badiru is the Dean and senior academic officer for the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT). Dr. Badiru was previously Professor and Head of Systems Engineering and Management at AFIT, Professor and Department Head of Industrial & Information Engineering at the University of Tennessee in Knoxville, and Professor of Industrial Engineering and Dean of University College at the University of Oklahoma, Norman. He is a registered professional engineer (PE), a certified Project Management Professional (PMP), a Fellow of the Institute of Industrial Engineers, and a Fellow of the Nigerian Academy of Engineering. He holds BS in Industrial Engineering, MS in Mathematics, and MS in Industrial Engineering from Tennessee Technological University, and Ph.D. in Industrial Engineering from the University of Central Florida. His areas of interest include mathematical modeling, systems efficiency analysis, and high-tech product development. He is the author of over 30 books, 35 book chapters, 75 journal articles, 115 conference proceedings and presentations. He also has published 30 magazine articles and 20 editorials and periodicals. He is a member of several professional associations and scholaristic honor societies. Deji Badiru has won several awards for his teaching, research, and professional accomplishments. He is the recipient of the 2009 Dayton Affiliate Society Council Award for Outstanding Scientists and Engineers in the Education category with a commendation from the 128th Senate of Ohio. He also won 2010 IIE Joint Publishers Book-of-the-Year Award from the Institute of Industrial Engineers. He also won 2010 ASEE John Imhoff Award for his global contributions to Industrial Engineering Education, the 2011 Federal Employee of the Year Award in the Managerial Category from the International Public Management Association, Wright Patterson Air Force Base, the 2012 Distinguished Engineering Alum Award from the University of Central Florida, and the 2012 Medallion Award from the Institute of Industrial Engineers for his global contributions in the advancement of the profession. In February 2013, he was selected as a finalist for the Jefferson Science Fellows (JSF) program by the US National Academy of Sciences and the US Department of State. Dr. Deji was the leader of the AFIT team that won the 2013 Air Force Organizational Excellence Award for Air University C3 (Cost Conscious Culture). His most recent award is the 2015 National Public Service Award at the overall US Air Force level.

Deji Badiru has served as a consultant to several organizations around the world including Russia, Mexico, Taiwan, Nigeria, Ghana, and Canada. He has conducted customized training workshops for numerous organizations including Sony, AT&T, Seagate Technology, U.S. Air Force, Oklahoma Gas & Electric, Oklahoma Asphalt Pavement Association, Hitachi, Nigeria National Petroleum Corporation, and ExxonMobil. He holds a leadership certificate from the University Tennessee Leadership Institute. He has served as a Technical Project Reviewer, proposal reviewer, and proposal reviewer for several organizations including The Third-World Network of Scientific Organizations, Italy, National Science Foundation, National Research Council, and the American Council on Education. He is on the editorial and review boards of several technical journals and book publishers. He is also a program evaluator for ABET, the international engineering and technology accreditation body. In 2011, Prof. Badiru led a research team to develop analytical models for Systems Engineering Research Efficiency (SEER) for the Air Force acquisitions integration office at the Pentagon. He has led a multi-year composite manufacturing collaborative research between the Air Force Institute of Technology and Wyle Aerospace Group. He is the founder of the Association of Military Industrial Engineers (AMIIE).

10:20 am, Tuesday, March 5, 2019 – Opening Keynote II

Devdas Shetty Ph.D, PE
Dean, School of Engineering and Applied Sciences
University of the District of Columbia
Washington, DC, USA

Dean Shetty joined University of the District of Columbia in 2012, having previously served as Dean of Engineering at Lawrence Technological University and Dean of Research at the University of Hartford. While with the University of Hartford, Dr. Shetty was first Chair of the Vernon D. Roosa Endowed Professorship. In addition, he was the Director of the Engineering Applications Center, through which he established partnerships with more than 50 Connecticut industries. During 2008 and 2009, Dr. Shetty served as Dean of the College of Engineering for Lawrence Technological University in Michigan. During that time, he initiated several new academic programs, established partnerships and contributed to curricular innovation. Prior to coming to Hartford, Dr. Shetty held academic positions at the Albert Nerkin School of Engineering at the Cooper Union for the Advancement of Science and Art in New York City. Dr. Shetty is the author of three books and more than 200 scientific articles and six patents. His books on Mechatronics and Product Design are widely used as a textbooks in many universities around the world. Dr. Shetty's research work has been cited for
original contribution to the understanding of engineering surface measurement, for significant intellectual achievements in mechatronics and for contributions to product design. He is especially well-known for his contributions in establishing partnerships between the University and industries. He is the recipient of academic and research grants from organizations like National Science Foundation, Society of Manufacturing Engineers, US Army, Air force etc.

Dr. Shetty had been leading research efforts in a U.S. Army research project on Unmanned Aerial Vehicles. In partnership with Albert Einstein College of Medicine in New York, he invented the patented mechatronics process for supporting patients. Dr. Shetty has chaired several international conferences and presented keynote lectures. Major honors received by Prof. Shetty include James Frances Bent award for Creativity, the Edward S. Roth National Award for Manufacturing from the Society of Manufacturing Engineers, American Society of Mechanical Engineer Faculty Award, and Society of Manufacturing Engineers Honor award. He is an elected member of the Connecticut Academy of Science and Engineering.

1:30 pm – 2:00 pm, March 5, 2019 – Tuesday Lunch Keynote

Prof. George G.Q. Huang
Chair Professor and Head of Department
Department of Industrial and Manufacturing Systems Engineering
The University of Hong Kong

Collaborative Manufacturing with Blockchain

Prof. George G.Q. Huang is Chair Professor and Head of Department in Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong. He gained his BEng in Mechanical Engineering from Southeast University (China) and Cardiff University (UK) respectively. He has conducted research projects in the field of Physical Internet (Internet of Things) for Manufacturing and Logistics with substantial government and industrial grants. He has published extensively including over two hundred refereed journal papers in addition to over 200 conference papers and ten monographs, edited reference books and conference proceedings. His research works have been widely cited in the relevant field. He serves as associate editors and editorial members for several international journals. He is a Chartered Engineer (CEng), a fellow of ASME, HKIE, IET and CILT, and member of IIE. Prof. George G.Q. Huang has been serving on editorial boards of a number of international journals. He is Editor for Asia Pacific for International Journal of Computer Integrated Manufacturing, Associate Editor of International Journal of Production Research, Area Editor for Business & Management for International Journal of Research in Engineering Design, and Associate Editor for Journal of Intelligent Manufacturing. Prof. George G.Q. Huang received 2014 First-Class Guangdong Province (Department of Science and Technology) on "Mass-Customized Design and Production System", 2007 First-Class Natural Science Award from Chinese Ministry of Education on "Service-oriented manufacturing execution in extended enterprises", 2007 Outstanding Young Researcher Award (Overseas) from Natural Science Foundation of China and 2001 The University of Hong Kong Outstanding Young Researcher Award.

Dr. Zhi Li (Piers)
Associate Professor in School of Electromechanical Engineering
Guangdong University of Technology (China)
Deputy Director of National Local Joint Engineering Laboratory for Manufacturing Internet-of-Things Technology

Dr. Zhi Li (Piers) is Associate Professor in School of Electromechanical Engineering, Guangdong University of Technology (China), and Deputy Director of National Local Joint Engineering Laboratory for Manufacturing Internet-of-Things Technology. He gained his BEng in Mechanical Engineering from Huazhong University of Science and Technology (China) and PhD in Industrial and Manufacturing Systems Engineering from University of Hong Kong respectively. Dr. Li has led research projects in the fields of Blockchain, Artificial Intelligence, Internet of Things for Manufacturing and has been awarded around 15 million RMB governmental and industrial grants. His research outputs have been implemented in more than 30 enterprises. Dr. Li has published more than 20 journal articles indexed by SCI. He is also the pioneer researcher who provide theoretical and practical approaches for blockchain technology to be implemented in the manufacturing industry. He serves as guest editor of two special issues: "Blockchain Technology in Industry" in Robotics and Computer Integrated Manufacturing and "Recent Advances in Design Analytics" in International Journal of Computer Integrated Manufacturing.

9:40 am – 10:20 am, March 6, 2019 – Wednesday Morning Keynote I

Mr. Anurat Suthamniurn
Executive Vice President
Corporate Food Processing & Engineering
CPF (Thailand) Public Company Limited
313 C.P.Tower, Silom Road
Silom, Bangkok, Thailand

Innovation for Sustainability

Education:
1984 Master of Industrial Engineering, University of Texas at Arlington, USA.
1981 BS in Industrial Engineering, King Mongkut’s University of Technology Thonburi, Thailand.

Work Experience
Present Executive Vice President Corporate Food Processing & Engineering CPF (Thailand) Public Company Limited.
2010 – 2015 Senior Vice President Corporate Food Processing & Engineering CPF (Thailand) Public Company Limited.
2000 – 2003 Assistant Vice President Corporate Food Processing & Engineering CPF (Thailand) Public Company Limited.
1991 – 1992 Deputy Factory Manager Saraburi Further Processing Plant
1987 – 1989 Project Engineer Saraburi Chicken Integrated at Slaughterhouse Plant Bangkok Produce Merchandising Public Co., Ltd.
1980 – 1982 Engineer Siam Nissan Automobile Co., Ltd.
Prof. Dr. Thumrongrut MUNGCHAROEN (RUTT)
Chairperson of Energy and Environment Cluster
National Science and Technology Development Agency (NSTDA)
Ministry of Science and Technology, THAILAND
Kasetsart University, Bangkok, Thailand

Dr. Thumrongrut Mungcharoen, born in Thailand in 1955, is an Associate Professor of Chemical Engineering Department at Kasetsart University. He obtained his Bachelor of Engineering with honors from Chulalongkorn University and Ph.D. from the University of Texas at Austin, USA. He had 2 years experience as a technical engineer at Toray Nylon Thai Co., Ltd. and 2 more years as a lecturer at Chemical Technology Department, Bangkok Technical College. After that, he has been teaching at Kasetsart University.

He has been involved extensively, during the past 25 years, as a consultant/expert in several projects on cleaner production, 3Rs (reduce, reuse, recycle), life cycle assessment, and eco-design for Thailand Environment Institute (TEI), Federation of Thai Industries (FTI), United Nations Industrial Development Organization (UNIDO), United Nations Environment Programme (UNEP), Asian Productivity Organization (APO), Asia-Pacific Economic Cooperation (APEC), Economic Research Institute for ASEAN and East Asia (ERIA), and other organizations. He used to be an executive board member and a chairperson of education and research sub-committee of the Thailand Network of Eco-efficiency and Cleaner Production (TNEC). He sits in an advisory board of the Industrial Environment Institute under the FTI. His teaching and research interests are focused on Cleaner Technology, Recycling, Life Cycle Assessment, Eco-Design and Risk Analysis. He has more than 220 technical publications. Representative awards he received are Fellow Award from Petroleum Institute of Thailand in 1999, Outstanding Person-Academic Award from Kasetsart University in 2000, Best Presentation Award from Thai Institute of Chemical Engineering and Applied Chemistry in 2007, Outstanding Person-Academic Service Award from Kasetsart University in 2010, and Excellent Research Award on Alternative Energy from Ministry of Energy in 2015.

He is one of the key persons who initiated the “Thai National Life Cycle Inventory Database” in 2007, “National Scheme of Thai Carbon Footprint Label” in 2009, “Pilot Project on Carbon Footprint for Organizations” in 2010, “Thai Upcycle Carbon Footprint Scheme” in 2015 and “Science Technology & Innovation for SDGs in Thailand” in 2016. He is currently also the Board of Trustees of the Asia Pacific Roundtable for Sustainable Consumption and Production (APRSCP) and the Chairperson of Energy and Environment Cluster under the National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, Thailand.

Mr. Dieter Broeckl
Senior Vice President and Head of Digital Factory (DF) / Process Industry and Drive (PD) Division Siemens Limited Thailand

Dieter Broeckl, obtained an Electronic and Electric degree from a Technical College in Nuremberg, Germany. He has 30 years professional experience in Automation Business, Sales, and Engineering. The last 15 years he focused on Asia’s industrial automation markets and developed business directly with End Customers as well as has build-up a professional partner network to reach and serve the local customer needs.

Today, he is leading a team of more than 200 employees located in Thailand, Myanmar and Cambodia and is coordinating the companies Process Automation business in the ASEAN region.

Dr. Robert De Souza
Executive Director
The Logistics Institute - Asia Pacific
National University of Singapore (NUS)
Singapore

Dr. Robert de Souza is the Executive Director of the The Logistics Institute - Asia Pacific (TLI - Asia Pacific). Robert is a Chartered Engineer and a distinguished writer, speaker, consultant and advisor in the area of supply chain management. Prior to this appointment, effective May 1st 2004, Dr Robert de Souza served as Deputy Executive Director (Industry) and IT Director at TLI - Asia Pacific. Previously, Dr de Souza was Executive Vice President (Asia Pacific) for V3 Systems. His extensive tenure in the industry also includes serving as the Corporate Senior Vice President and Global Chief Knowledge Officer at Viewlocity Inc. and co-founder, Vice Chairman and CEO of SC21 Pte., Ltd., a Singapore-based supply chain software firm. As an educator, Dr de Souza is an Adjunct Professor in the School of Industrial and Systems Engineering at Georgia Institute of Technology in Atlanta and also a Senior Fellow in the Department of Industrial and Systems Engineering at the National University of Singapore and has previously served as a professor and in several senior positions in the School of Mechanical and Production Engineering at Nanyang Technological University in Singapore. Dr. de Souza is a member of the Editorial Boards of the International Journal of Computer Integrated Manufacturing and the International Journal of Logistics Research and Applications. Dr. de Souza also serves on the Advisory Panel of The Chartered Institute of Logistics and Transport, Singapore (CILT), as a Council Member of the Singapore eSupply Chain Management (eSCM) Council and on the Boards of Directors/Advisors of several IT-based corporations.
Dr. Chen-Fu Chien
Tsinghua Chair Professor
Department of Industrial Engineering & Engineering Management
National Tsing Hua University
Convenor, Industrial Engineering and Management Program, Ministry of Sci. & Tech.
Director, Artificial Intelligence for Intelligent Manufacturing Systems (AIMS) Research Center,
Ministry of Science & Technology, Hsinchu, Taiwan

Industry 3.5 as Hybrid Strategy to Empower Disruptive Innovations for Smart Production for Emergent Countries

Dr. Chen-Fu Chien is Tsinghua Chair Professor, in the Department of Industrial Engineering & Engineering Management, National Tsing Hua University (NTHU) in Taiwan. Professor Chien is the Convenor for Industrial Engineering and Management Program, Ministry of Science & Technology (MOST), Taiwan. He is the Director of Artificial Intelligence for Intelligent Manufacturing Systems (AIMS) Research Center that is one of four national AI centers sponsored by MOST, Taiwan. He has been Principal Investigator for the Semiconductor Technologies Empowerment Partners (STEP) Consortium and the Director for the NTHU-TSMC Center for Manufacturing Excellence in NTHU. He received B.S. with double majors in Industrial Engineering and Electrical Engineering with the Phi Tau Phi Honor from NTHU in 1990. He received M.S. and Ph.D. of Decision Sciences and Operations Research with two minors in Statistics and Business at the University of Wisconsin-Madison, in 1994 and 1996, respectively. He was a Fulbright Scholar in the Department of Industrial Engineering and Operations Research, UC Berkeley, from 2002 to 2003. He also received the Executive Training of PCMPCL from Harvard Business School in 2007. He was a Visiting Professor in Institute for Manufacturing, Cambridge University (sponsored by Royal Society, UK), Visiting Professor in Beijing Tsinghua University (sponsored by Chinese Development Foundation), Visiting Professor in Waseda University (sponsored by Japan Interchange Association Young Scholar Fellowship).

His research mainly concerns the development of digital decision, big data analytics, and optimization methodologies and better analytical solutions for high-tech companies confronting with multi-objective decision problems involved in strategy, manufacturing, and technology that are characterized by uncertainty with massive data and a need for tradeoff among various objectives and justification for the decisions. Dr. Chien and his Decision Analysis Lab Associates have conducted many university-industry collaborative research projects with domain experts. From 2005 to 2008, he had been on-leave to serve as the Deputy Director of Industrial Engineering Division in Taiwan Semiconductor Manufacturing Company (TSMC) that is the world leading wafer foundry. Dr. Chien has 23 invention patents for intelligent manufacturing and published more than 170 journal papers. Dr. Chien has received many awards including the Executive Yuan Award for Outstanding Science & Technology Contribution (2016), the National Quality Award from the Executive Yuan (2012), Distinguished Research Awards (2007, 2011, 2016), Tier-One Principal Investigator (2005-2008), and Best Research Awards from the Ministry of Science & Technology, University Industrial Contribution Award from Ministry of Economic Affairs for Individual Contribution (2009), Distinguished University-Industry Collaborative Research Award from the Ministry of Education (2001), the TECO Award (2018), Distinguished Young Faculty Research Award (2001) and Distinguished University-Industry Collaborative Research Award (2007) by NTHU, Best Paper Award (2001), Distinguished Young Industrial Engineer Award (2001), IE Medal (2010) from Chinese Institute of Industrial Engineers, Best Engineering Paper Award (2002) and Distinguished Engineering Professor (2010) by Chinese Institute of Engineers, TSMC-NTHU Faculty Semiconductor Research Grant (2004), and the Lu, Feng-Chang Award from Chinese Management Association (2007). He received the 2011 IEEE Trans. on Automation Sciences and Engineering Best Paper Award and the 2015 IEEE Trans. on Semiconductor Manufacturing Best Paper Award. Dr. Chien is a fellow of APIEMS, CIIE, and CSMOT. He is Area Editor for Flexible Services and Manufacturing Journal, Associate Editor for IEEE Transactions on Automation Science and Engineering and Journal Intelligent Manufacturing. He is on the Advisory Board of OR Spectrum and editorial board for Computers and Industrial Engineering.

Dr. Josu Takala
Professor, Industrial Management and Materials Management
University of Vaasa, Vaasa, Finland

Prof. Dr. Josu Takala has a vast experience in both industry and academia. He worked for ABB (Strömberg): belongs to ABB (Asea Brown Boveri) Group, ABB Strömb erg consists of about 30 independent Ltds in the wide business area of electr., R&D & 8 % of the turnover(3000 Million USD/1995) in the divisions of R&D. Quality Assurance related tasks to automation as researcher and manager in 1979-1992. Educational background: Tampere University of Technology M.Sc (El.Eng) 1980 and Dr.Tech. (El. Eng.and business studies in the University of Vaasa) 1988 as well as Dr. HC in 2009 from the Technical University of Košice. And Dr.HC (Technology Management and Business) in Universiti Tun Hussein Onn Malaysia 2015. Currently he is Professor in Industrial Management at the University of Vaasa 1988- , Finland besides other multiple universities in Finland and abroad such as Thailand, Malaysia, China, Slovakia, Slovenia etc. His field of interest is mainly technology management in the sustainable competitive strategies of private and public organizations in manufacturing networks by utilizing the generic fields of quality management, technology strategy, new product development, production management, logistics and environmental management. Over 500 scientific published articles. Co-Editor, Special Issue Editor, Member of Scientific Board in Journals (like MPER, MNG), and invited or key note speaker and Chairman or Honored Chairman in international conferences.

Submissions Received from Countries and Territories

3. Austria 18. Finland 33. Kuwait 48. Portugal 63. UAE
4. Bangladesh 19. France 34. Malaysia 49. Qatar 64. United Kingdom
14. Czech Republic 29. Italy 44. Oman 59. Taiwan
15. Ecuador 30. Japan 45. Pakistan 60. Thailand
### 13th IEOM Global Engineering Education

**DISTINGUISHED SPEAKERS**

**Tuesday (March 5, 2019)**

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

Session Chair: Dr. Syed Ahmad Helmi Al Haddad, Universiti Teknologi Malaysia

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### 8:00 – 8:30 (Tuesday) – Room 1

**Ana Luísa Ferreira Andrade Ramos**

Assistant Professor of Management and Industrial Engineering (MIE)

Department of Economics, Management and Industrial Engineering (DEGEI)

University of Aveiro, Campo de Santiago, Aveiro, Portugal

**Model-Based Systems Engineering (MBSE): Visual Thinking to Engineer Modern Complex Systems**

Ana Luísa Ferreira Andrade Ramos was born in Viseu (Portugal), in 1974. She received the M.Sc. degree in Computers Engineering from the University of Coimbra, Coimbra, Portugal, in 2002 and the Ph.D. degree in Industrial Management from the University of Aveiro, Aveiro, Portugal in 2011. She is currently an Assistant Professor of Management and Industrial Engineering (MIE) with the Department of Economics, Management and Industrial Engineering (DEGEI) of University of Aveiro, where she teaches since 1997 (Simulation, Operations Management and Logistics). She is member of the Executive Board of the Department. She was a member of the Department Council, vice-director of the MIE undergraduate program and coordinator of the Socrates/Erasmus program for the MIE area. She is an integrated member of the Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP) of the University of Aveiro being the research work focused on systems engineering and modeling & simulation of complex systems, with applications in the industrial and transportation sectors. She has participated in several scientific research projects and industry-based projects. She co-authored book chapters and numerous scientific papers published in peer reviewed international journals and international conferences proceedings. She received, in 2009, the international award “INCOSE Foundation/Stevens Institute Doctoral Awards for Promising Research in Systems Engineering and Integration”. She served as reviewer for many scientific journals such as Computers and Industrial Engineering, IEEE Transactions, and Research in Engineering Design. She is a member of the IEEE Society, the IEEE Systems, Man, and Cybernetics Society, the International Association of Computer Science and Information Technology, the Systems Engineering & Architecting Network for Research (SEANET), and the Portuguese Association for the Development of Operational Research (APDIO).

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### 8:30 – 9:00 (Tuesday) – Room 1

**Prof. Aurobindo Ogra**

Lecturer: Department of Town and Regional Planning

Coordinator: Masters in Sustainable Urban Planning and Development (MSUPD)

Faculty of Engineering and the Built Environment (FEBE), University of Johannesburg, South Africa

Mr. Aurobindo Ogra joined University of Johannesburg in 2009 and presently lectures in areas of Sustainable Urban Infrastructure and Smart Cities Development at Department of Town and Regional Planning, Faculty of Engineering and the Built Environment. He acquired Bachelor of Construction Technology (2000) and Masters in Urban & Regional Planning (2002) from CEPT University, Masters in Business Economics(2009) from Annamalai University and is currently finishing his doctoral research in Engineering Management at University of Johannesburg. He has also participated in specialized certificate programmes in urban sector from leading institutions namely Central European University (CEU), World Bank Institute, IGLUS-EPFL Switzerland, University of California, Berkeley and University of West Florida. He has more than 16 years of international professional experience from South Africa, India and China. He has worked on multi-sectoral urban projects from multilateral & bilateral donor agencies like ADB, World Bank, JBIC, USAID, and National, Provincial and Local Governments. His key expertise and interest areas span across multidisciplinary domains of urban sector: Smart Cities, Urban and Regional Planning, Urban Infrastructure, Urban Development and Management, Local Government, Urban Financial Management, Metropolitan and City Regions, e-Governance, Geographic Information Systems, Urban/ Spatial Analytics, Innovation & Technology Integration, Tourism, and Industrial Parks Development. He is currently acquiring further knowledge and skills in areas of Data Science, Big Data, Machine Learning, Artificial Intelligence and Geo-Computing and its application for solving complex real world problems in urban and regional sector. He is a registered Professional Planner with South African Council for Planners (SACPLAN), Member of International Society of City and Regional Planners (ISOCARP), Associate Member of Institute of Town Planners India (ITPI) and among other key national and international professional and voluntary associations. At an institutional/ industry engagement level, he has provided technical inputs at various levels in the capacity of an Expert Panel Member, Working Commission Member, Scientific Committee Member, Editorial Board Member, Reviewer, Session Chair and as a Keynote Speaker.

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### 9:00 – 9:30 (Tuesday) – Room 1

**Dr. Syed Ahmad Helmi Al Haddad**

Program Coordinator for MSc in Industrial Engineering, Faculty of Mechanical Engineering

Associate Fellow, Center for Engineering Education (CEE), Universiti Teknologi Malaysia, Johor, Malaysia

Dr. Helmi is a senior lecturer in the Faculty of Mechanical Engineering, Universiti Teknologi Malaysia (UTM), and is affiliated to the UTM Centre for Engineering Education. He is currently the Graduate Programme Coordinator for the Department of Material, Manufacturing and Industrial Engineering. He has a Bachelor of Science in Mechanical Engineering, Master in Mechanical Engineering, and a PhD in Engineering Education. Prior to joining UTM, he worked as industrial extension officer in Standard and Industrial Research Institute of Malaysia (SIRIM) as an engineer in various industries, such as INTEL and SIME-DARBY. Syed Helmi was a visiting scholar in University of Waterloo, Canada, and one of a task force member in-charged of propagating active learning in UT.M. Over the years, as a practitioner of Problem-Based Learning (PBL), he has conducted several workshops to train academics, especially those in Science, Technology, Engineering, and Mathematics (STEM) education areas, on Outcomes-Based Education (OBE) particularly in effective implementation of Student Centred Learning (SCL) throughout Malaysian higher institutions, and international institutions such as in China, India, Korea, Turkey, and Afghanistan. Dr. Helmi was invited as speaker in several international conferences. He also had published numerous articles related to his area of interest. His recent works include SCL, change management, complex engineering problems, manufacturing systems and optimization, and modelling of complex industrial systems.

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9:30 am - **Welcome Address**: Dr. Nat Vorayos, Dean, Faculty of Engineering, Chiang Mai University, Thailand

9:40 am (Tuesday) - **Opening Keynote I**: Dr. Adedeji Badiru, Dean, Graduate School of Engineering and Management, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA

10:20 am (Tuesday) **Opening Keynote II**: Dr. Devdas Shetty, Dean, School of Engineering and Applied Sciences, University of the District of Columbia, Washington, DC, USA

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Ninth Annual International Conference
Session II: Global Engineering Education (Room 2) - 11:30 am – 1:00 pm (Tuesday)
Session Chair: Puteri Suhaiza Sulaiman, Universiti Putra Malaysia

11:30 – 12:00 (Tuesday) – Room 1

Dr. Aezeden Mohamed
Senior Lecturer, University of Technology, Papua New Guinea

Aezeden Mohamed has a B.Sc., M.Sc., and PhD degrees in Mechanical and Manufacturing at the University of Manitoba, Canada. His areas of research are experimental in nature includes but not limited; mechanical properties, materials characterizations, corrosion and corrosion control, and biomedical engineering. He has carried out research and taught at the University of Manitoba and Memorial University in Canada. In addition to his technical research interests, he earned diploma in Higher Education Teaching from University of Manitoba, Canada. He has published over 10 papers in Canadian Engineering Education Association. Currently, he is a Senior Lecturer at the University of Technology, Papua New Guinea. John Yuahan Pumwa, is a Professor of Mechanical Engineering and the Acting Dean of Engineering at the PNG University of Technology. Professor Pumwa's research interests are in the areas of Tribology (friction, wear and lubrication), engineering materials, friction and wear, energy, biodiesel and renewable energy, modelling and simulation and engineering education. Prior to joining the faculty at Mechanical Engineering, PNG University of Technology, he was a member of the production engineering team at New Britain Palm Oil Limited. He joined the company immediately after graduating from the PNG University of Technology.

John Yuahan Pumwa
Professor of Mechanical Engineering and Acting Dean of Engineering, PNG University of Technology, Papua New Guinea

Professor Pumwa graduated from the PNG University of Technology with her BEng., degree in Mechanical Engineering. He also graduated from the University of Wollongong, N.S.W., Australia with a MEng (Hons) in Mechanical Engineering. He also graduated from Texas A&M University with a Ph.D. degree in Interdisciplinary engineering. He is a Fellow of the American Society of Mechanical Engineers (FASME) and a Fellow of the Institution Engineers, PNG (FIEPNG) and a member and Chartered Engineer of the Institution of Mechanical Engineers (MIMechE), UK. Professor Pumwa completed his postdoctoral research at Korea Advanced Institute of Science and Technology (KAIST) with Professor Nam Soo Woo. Professor Pumwa was also attached at Baylor University, Engineering Department as a research Professor conducting research in biodiesel production and testing using coconut oil with supervision of Professor Walter Bradley in Waco, Texas. Professor Pumwa has taught a number of courses in mechanical engineering; statics, dynamics, mechanics, engineering materials, ethics, failure analysis, vibration and design of experiments. He has served as a Acting Vice Chancellor for almost a year while waiting for the Vice Chancellor to arrive on campus.

He has served on a number of university committees (admissions, staffing and appeals) and also board member of PNG Ports for a number of years. He is currently teaching failure analysis to final year students and engineering ethics to third year mechanical engineering students. Educational Background: Postdoctoral Fellow, Korea Advanced Institute of Science and Technology (KAIST), Ph.D., Interdisciplinary Engineering, Texas A&M University, MEng., Mechanical Engineering, University of Wollongong, NSW, Australia and B.Eng., Mechanical Engineering, PNG University of Technology.

ID 262 Reflections on Teaching, Research, and Service of a Faculty Member for Those Transitioning into a University Tenure Track Faculty Position
Aezeden Mohamed and John Yuahan Pumwa, PNG University of Technology, Papua New Guinea

12:00 – 12:30 (Tuesday) – Room 1

Mohamed Ismail, Ph.D.
Senior IT Consultant, Texas A&M University at Qatar, Education City, Doha, Qatar

Dr. Mohamed Y. Ismail received his MS. and Ph.D. in Electrical and Computer Engineering from University of Florida. He progressed through several leadership positions at Verizon Communications. Dr. Ismail joined Texas A&M University at Qatar as a Senior IT Consultant and created several pioneering initiatives for promoting the use of digital technologies in the classroom. He has widely presented papers in national and international conferences and symposia and worked closely with engineering faculty at Texas A&M University at Qatar to develop and introduce new technologies to assist students’ learning. His research interests include application of Virtual and Augmented Reality to engineering instruction and the design of innovative instructional methods for engineering education.

ID 301 Applications of Virtual Reality (VR) as Teaching Tool to Enrich Students Learning
Mohamed Ismail and Hamid R. Parsaei, Texas A&M University at Qatar

Boback Parsaei, Senior Consultant, Integrated Technology Systems, Inc., Houston, Texas

12:30 – 1:00 (Tuesday) – Room 1

Puteri Suhaiza Sulaiman
Senior Lecturer, Universiti Putra Malaysia

Puteri Suhaiza Sulaiman is a senior lecturer in Universiti Putra Malaysia. She has Degree of Science (Computer) and Masters of Science (Computer Science), both from Universiti Teknologi Malaysia (UTM). She then received her PhD in Computer Graphics at in Universiti Putra Malaysia (UPM). She has more than 15 years experience in the field of computer graphics, computer vision, information visualization and advanced interaction. Her current research explores the realm of virtual and mixed reality, focusing on the interaction and visualization elucidation. She has been involved in designing and developing computer games for children and people with special needs.

ID 398 Engineering Education through Students Engagement in Virtual Learning Space
Puteri Suhaiza Sulaiman, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

Session III: Global Engineering Education (Room 1) - 2:30 – 4:00 pm (Tuesday)
Session Chair: Trynos Gumbo, University of Johannesburg (UJ), South Africa

2:30 – 3:00 (Tuesday) – Room 1
Abdelaziz Berrado, Ph.D.
Department Chair and Associate Professor, Industrial Engineering Department
EMI School of Engineering at Mohamed V University, Rabat, Morocco

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

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Ninth Annual International Conference
Trynos Gumbo is an Associate Professor and Head of the Department of Town and Regional Planning within the Faculty of Engineering and the Built Environment at the University of Johannesburg (UJ), South Africa. Gumbo has a PhD from Stellenbosch University, South Africa as well as masters and honours degrees from the University of Zimbabwe (UZ), Zimbabwe. He has previously worked in the Africa Institute of South Africa of the Human Sciences Research Council as a research specialist and Acting Manager for the Sustainable Development Programme. Prof. Gumbo has also worked as an international instructor in the Urban Management Masters Programme within the Ethiopian Civil Service University College (ECSUC) in Addis Ababa in Ethiopia. Before, Prof. Gumbo had worked as lecturer and Head of Department at the National University of Science and Technology (NUST) in Zimbabwe. He has attended and presented at several national and international conferences and has published widely on urban development and management. His research interests include urban transportation planning and management, sustainable and smart cities development, housing and economic informality, green economy and renewable energy generation from waste and innovative building technologies and materials.

ID 448 Investigating curriculum transformation pathways in technological planning schools: Learning from conventional planning programmes and beyond
Trynos Gumbo, University of Johannesburg, Gauteng, South Africa
Emaculate Ingwani, Department of Urban and Regional Planning, School of Environmental Science, University of Venda, South Africa

3:30 – 4:00 (Tuesday) – Room 1

Dr. Fauzia Jabeen
Associate Professor of Management
College of Business, Abu Dhabi University, UAE

Dr. Fauzia Jabeen is an Associate Professor of Management at College of Business, Abu Dhabi University. She holds a Ph.D. in Management and has notable academic and industrial experience of United Arab Emirates (UAE). Dr. Jabeen’s teaching and research interests pertain to Women Entrepreneurship & SMEs, Family Business, Organizational Behaviour, Leadership, Sustainability, and Emiratization. Her work has been published in the leading journals like International Journal of Hospitality Management, International Journal of Organizational Analysis, Journal of Small Business and Enterprise Development, and Journal of Management Development. She has more than 15 years of experience in Teaching, Research and Consulting.

ID 656: Perceptions and Career Choices Linked to the UAE Youths Entrepreneurial Intention
Fauzia Jabeen, College of Business, Abu Dhabi University, UAE

4:00 - 4:30 Networking Break

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

Panel Session – Global Engineering Education

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

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

Dr. Hamid Parsaei, PE
Professor of Industrial and Systems Engineering
Texas A&M University (College Station) and Professor of Mechanical Engineering
Texas A&M University - Qatar

Hamid R. Parsaei is Professor of Industrial and Systems Engineering at Texas A&M University (College Station) and also Professor of Mechanical Engineering and Associate Dean for Academic Affairs at Texas A&M University at Qatar. He is a registered professional engineer (PE) in Texas, a fellow of the Institute of Industrial Engineers (IIE), and a fellow of the American Society for Engineering Education (ASEE). He has published over 200 articles in peer-reviewed archival journals and conference proceedings. He has also served as editor/co-editor in chief for four academic journals and five book series. His research, in excess of $22 million, has been funded by numerous government and private institutions.
Dr. Dradedji Badiru  
Dean  
Graduate School of Engineering and Management  
Air Force Institute of Technology  
Wright-Patterson AFB  
Ohio, USA

Wednesday (March 6, 2019)

Session V: Global Engineering Education (Room 1) - 8:00 – 9:30 am (Wednesday)  
Session Chair: Dr. S. C. Naik, National Institute of Technology, Rourkela, Odisha, India

8:00 – 8:30 (Wednesday) – Room 1  
Dr. Paul A. Ozor  
TWAS-NRF Research Fellow, University of Johannesburg, South Africa

Dr Paul A. Ozor obtained a bachelor’s degree (B.Eng) in Mechanical/Production Engineering at Enugu State University of Science and Technology, Nigeria. He worked as project manager with some Engineering Companies before proceeding to Department of Mechanical Engineering, University of Nigeria Nsukka (UNN) for higher studies, and specialized in Industrial Engineering and Operations Management. He obtained both Masters and PhD degrees in 2008 and 2015 respectively from UNN. He has been a teaching and research staff of UNN for over a decade. He is a Professional Member of Nigeria Society of Engineers. Dr Ozor is currently a TWAS-NRF research fellow to University of Johannesburg, South Africa, and had been awarded the Association of Common Wealth Universities’ (ACU) early career scholarship in 2014. His research interests include Industrial Operations modelling, Quality management, Systems Analysis, Reliability Engineering, with special emphasis on System Sustainability, Failure mode effects and criticality analysis (FMECA), Safety and Risk assessment (SRA) as well as Environmental influence modelling, including Waste Management, Water and Energy nexus.

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

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

Dr. A. K. Malik  
Associate Professor, Department of Mathematics, B. K. Birla Institute of Engineering & Technology, Pilani, INDIA  
Applications of Optimizations in Engineering and Management

Dr. A. K. Malik, Associate Professor in the Department of Mathematics, B. K. Birla Institute of Engineering & Technology Pilani, Rajasthan, India. He received his MSc degree with Mathematics from Gurukula Kangri VishwaVidyalaya, haridwar, Uttarakhand and PhD from Chaundyhar Charan Singh University, Meerut, Uttar Pradesh. He has more than 13 years’ experience in academic and research. His area of specialization is Operations Research, Inventory Control, and soft computing techniques. He has published more than forty research papers in reputed national and international journals. He has also attended various national and international seminar/conferences/symposiums/workshops and presented his research papers. He is author/co-author of 18 books like Operations Research (Oxford University Press), Engineering Mathematics-I & II, Mathematics-III (for EC&EE), Adv Engineering Mathematics (All New Age International Publication, New Delhi); Optimization Techniques, Topology, Measure Theory & Integration (I K International Publication, New Delhi); and Mathematics-III (for CS& IT) (Asian Publication, New Delhi) etc. Dr. Malik has been invited to deliver talks on various research topics in several Institutes (IITs and others) and universities; and a visiting Professor in various prestigious institutes EISTI University, CERGY, Paris France for delivered lectures on “Thorough operational research: Modelling and Business Application” to Master In Business Analytics-ADEO during Nov 2014 - Dec 2014. He has supervised 5 Ph.D. students in the field of inventory control and soft computing techniques. He is a life member of learned societies, Association of Inventory Academicians and Practitioners (IAP), Indian Association for Reliability and Statistics (IARS), Rajasthan Ganita Parishad (RGP). He is reviewer of various journals Opsearch, JIEL, IJPMB & USCM, IJPM, and editorial board member of IJSCE, AJMS,BSMS, IJMSA, etc.

ID 603 Engineering Education and Self Dependence: A Nigerian Experience  
Paul Amaechi Ozor and Charles Mbohwa, University of Johannesburg, South Africa

8:30 – 9:00 (Wednesday) – Room 1  
Dr. A. K. Malik  
Associate Professor, Department of Mathematics, B. K. Birla Institute of Engineering & Technology, Pilani, INDIA  
Applications of Optimizations in Engineering and Management

Dr. A. K. Malik, Associate Professor in the Department of Mathematics, B. K. Birla Institute of Engineering & Technology Pilani, Rajasthan, India. He received his MSc degree with Mathematics from Gurukula Kangri VishwaVidyalaya, haridwar, Uttarakhand and PhD from Chaundyhar Charan Singh University, Meerut, Uttar Pradesh. He has more than 13 years’ experience in academic and research. His area of specialization is Operations Research, Inventory Control, and soft computing techniques. He has published more than forty research papers in reputed national and international journals. He has also attended various national and international seminar/conferences/symposiums/workshops and presented his research papers. He is author/co-author of 18 books like Operations Research (Oxford University Press), Engineering Mathematics-I & II, Mathematics-III (for EC&EE), Adv Engineering Mathematics (All New Age International Publication, New Delhi); Optimization Techniques, Topology, Measure Theory & Integration (I K International Publication, New Delhi); and Mathematics-III (for CS& IT) (Asian Publication, New Delhi) etc. Dr. Malik has been invited to deliver talks on various research topics in several Institutes (IITs and others) and universities; and a visiting Professor in various prestigious institutes EISTI University, CERGY, Paris France for delivered lectures on “Thorough operational research: Modelling and Business Application” to Master In Business Analytics-ADEO during Nov 2014 - Dec 2014. He has supervised 5 Ph.D. students in the field of inventory control and soft computing techniques. He is a life member of learned societies, Association of Inventory Academicians and Practitioners (IAP), Indian Association for Reliability and Statistics (IARS), Rajasthan Ganita Parishad (RGP). He is reviewer of various journals Opsearch, JIEL, IJPMB & USCM, IJPM, and editorial board member of IJSCE, AJMS,BSMS, IJMSA, etc.
9:00 – 9:30 (Wednesday) – Room 1
Dr. Shiba Charan Naik
Professor, Former Head of Chemical Engineering and Dean, National Institute of Tech, Rourkela, Odisha, India
Past President, The Institution of Engineers, Past VP, Federation of Eng. Institutions in South & Central Asia

Professor S C Naik obtained his BTech, MS & PhD degrees-all in Chemical Engineering from the Universities of Madras, Ottawa and UK (Swansea, Wales) respectively. He taught at the National Institute of Technology, Odisha State, India where Dr. Naik was Head of the Department and Dean. He guided many Research Fellows, some medium scale Industries and helped in establishment of an Engineering College. Dr. Naik authored/co-authored some books, published many papers in International and National Journals and presented papers in several countries. He was a Keynote Speaker at the Technical Events in Sri Lanka, South Korea, some Gulf countries, Naples, Tokyo and San Francisco in 2007. Dr. Naik was a Consultant to a prestigious Journal. Dr. Naik was a President of The Indian Institution of Engineers, one of the largest professional bodies in the world, a Vice President of The Federation of Engineering Institutions of South & Central Asia and a Council Member of The Indian Institute of Chemical Engineers. He is a well-known writer in his own mother tongue, Odiya and has published several social novels, a book with one hundred poems and several articles for which he has been felicitated by his State Literature Academy and his name has found place in Central Literature Academy. Dr. Naik is associated with many Committees at the State and Central levels. Professor Naik has a deep involvement in social service for which he has been even appreciated by a world-based organization. For his achievements, he has been awarded and appreciated by Regional, State, Central and Global organizations.

9:40 - 10:20 (Wednesday): Keynote: Mr. Anurat Suthamniur, Executive Vice President, Corporate Food Processing & Engineering, CPF (Thailand) Public Company Limited, Silom, Bangkok, Thailand

10:20 - 11:00 (Wednesday): Keynote: Prof. Thumrongrut MUNGHAROEN (RUTT), Chairperson of Energy and Environment Cluster, National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, Thailand, Kasetsart University, Bangkok, Thailand

Session VI: Global Engineering Education (Room 1) - 11:30 am – 1:00 pm (Wednesday)
Session Chair: Hamid R. Parsaei, Texas A&M University at Qatar, Doha, Qatar

11:30 – 12:00 (Wednesday) – Room 1
Dr. Annamalai Pandian
Associate Professor and Director of B.S. in Engineering Technology Management Program
Department of Mechanical Engineering, Saginaw Valley State University, Michigan, USA

Annamalai Pandian is an Associate Professor in the Department of Mechanical Engineering at the Saginaw Valley State University, Michigan, USA and Director of B.S. in Engineering Technology Management program. He earned his B.Eng. & M. Eng. Degree in Mech. Eng. from University of Madras, Chennai, India, and M.S. Degree in Mech. Eng. from Louisiana State University, Baton Rouge, LA and D. Eng., Degree in Manufacturing Systems from Lawrence Technological University, Southfield, MI, USA. He has wealth of experience in automotive tooling design and manufacturing having worked for Chrysler Corporation for more than 13 years. He has taught several mechanical and manufacturing engineering courses. His research interests include 3D printing, Simulation, DOE, Robotics, ARMA and ANN. He is a member of ASQ, ASEE, and IEOM. He is also a member of the editorial advisory board for the International Journal of Quality and Reliability Management and a reviewer for many International Journals.

ID 031 Vision Guided Robotics Research Study
Annamalai Pandian, Saginaw Valley State University, Michigan, United States

12:00 – 12:30 (Wednesday) – Room 1
Dr. Manali Kshirsagar
Principal, Rajiv Gandhi College of Engineering and Research, Wanadongiri, Nagpur, India

Dr. Manali’s wide professional experience of 26 years is a blend of rich experience from Academia and Industry. Dr Manali has Ph.D. (Computer Science), M.E. (Computer Science & Engineering), B.E. (Computer Technology) and Diploma (Computer Technology), M.B.A. (Finance & Marketing). Her specialization at post graduate and Ph.D. level includes Data Warehousing, Data Mining, Business Intelligence and Bioinformatics and other areas of interest include Advanced Operating Systems, Wireless Sensor Networks, Business Analytics. Her job profile so far has been Education Leader, Vice President at ADCC Infocad Ltd., full Professor at UG and PG level, Ph.D. Supervisor. Head of the Department, Dean (Students Activities), Head of the Institution, Director, International Relations Office, Meghe Group, Project Director – The Kalam Impact –Signature Faculty Empowerment Programme of Meghe Group. Currently Dr. Manali is working in the capacity of Principal & Head of the Institution. She is Chartered Engineer, Life Member of Indian Society for Technical Education (New Delhi), Elected Member of IE (I) Maharashatra State Center, Vice-chair of CSI Nagpur Chapter. Dr. Manali has more than 50 technical and research publications in International Journals, International and National conferences. She has been a guide of 14 Ph. D. scholars out of which 07 scholars have been awarded with the Ph.D. degree, 03 scholars have submitted their thesis and 04 scholars are pursuing their research work. Dr. Manali has been instrumental in signing MoUs with US universities for many collaborative ventures. Her International exposure includes visits to US universities e.g. Massachusetts Institute of Technology(MIT), Boston .University of Massachusetts, Lowell Michigan State University, Lansing, Arizona State University, Phoenix, University of Southern California, Los Angeles, Purdue University, Indianapolis.

12:30 – 1:00 (Wednesday) – Room 1
Dr. Albertus Retnanto
Professor of the Practice of Petroleum Engineering, Texas A&M University at Qatar

Dr. Albertus Retnanto is Professor of the Practice of Petroleum Engineering at Texas A&M University at Qatar and has been in the Petroleum Engineering program since 2009. He received his Ph.D. degree in Petroleum Engineering (1998) from Texas A&M University. He teaches undergraduate courses in numerical methods, well testing, petroleum production system, production engineering, petroleum technical presentation, natural gas engineering, and integrated asset development and makes significant curriculum enhancements to several courses. He held a Principal position with Schlumberger and has more than 18 years of experience worldwide in both technical and management positions in the area of well testing, field development, and production enhancement. He has received the Performed by Schlumberger Bronze Award four times. He has served as the Review Chairman of SPE Drilling Completion Journal and Chair on several committees on SPE. He received the APEA SNEF SPE Award, which is dedicated to the technical excellence of authors to the industry. He received the AFS College-level Distinguished Achievement Award in Teaching in 2016, SGA Educator Award, SEC Best Faculty Award, and the Faculty of the Year Award in five times, and the Distinguished Teaching Award. He has authored and co-authored over 35 papers. He is a PETE undergraduate advisor, and ABET/SAC coordinator. He serves as an ABET Program Evaluator (PEV) for the Engineering Accreditation Commission representing the Petroleum Engineering.

ID 217 The Role of Program Advisory Board in Elevating the Degree Program Content
Albertus Retnanto and Hamid R. Parsaei, Texas A&M University at Qatar
Boback Parsaei, Senior consultant with Integrated Technology Systems, Inc., Houston, TX, USA
Session VII: Global Engineering Education (Room 1) - 2:30 – 4:00 pm (Wednesday)
Session Chair: Jedsada Timpontian, King Mongkut's institute of Technology Ladkrabang (KMITL) Thailand

2:30 – 3:00 (Wednesday) – Room 1

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

Began the academic career with a technician course in Electronics from Liceu de Artes e Ofícios (1999) followed by an undergraduate degree in Electronics Engineering from Universidade Presbiteriana Mackenzie in 2004. In 2016, finished the Masters course in Industrial Engineering with the Quality of Engineering Education and its Relation to Regional Development as his area of research. As a technical profession, from 1999 until 2016, started in Caltronic Automação Industrial, a service-based company in Brazil that represents American and European automation equipment for the printing industry, and finished as Service and Projects Manager, serving not only Brazil but the whole of South America with services performed also in USA and China. During the professional career took several courses in USA and Europe to Automation and dedicated equipment maintenance. In 2016 left the company for full-time dedication to IFSP. In 2014 began his teaching career in FIIEB as a substitute teacher for the Technical Course of Electronics. In 2016 moved to IFSP to start the electronics Technical Course in the city of Sorocaba and has been engaged with this project since then. In this 4,5 year variety of courses in electronics. In 2018 began his Research Group in Industry 4.0 and is currently working with colleagues in this research area as well as the project for the PhD.

3:00 – 3:30 (Wednesday) – Room 1

Prof. Dr. Ripu Ranjan Sinha
Director General, Asia Africa Development Council
Founder, The India – Africa ICT Knowledge Consortium and Professor, S S Jain Subodh P G College, Jaipur
Associate Dean for Research Affairs, Suresh Gyan Vihar University, Jaipur, India

Prof. Sinha is Indian Academician Serving as a Director General of Asia Africa Development Council (ADCO), a Promising Council to support and promote sustainable peace and Development. He is the Founder of Master’s and Bachelor’s from St. Xavier College of Computer Studies, Patna and, Doctor of Philosophy in Computer Sciences in Strategic Knowledge Management. He attained excellence in research through QIP on “Business Informatics” and “Research Methodologies” form IIT Kanpur and IIT, Mumbai where he developed an innovative vision to contribute for sustainable peace and Development. He spent two decades as a Professor and research administrator mainly at leading academic and research labs and is intimately involved in Computer Society of India as Vice Chairmen. He came to be known as “MAN WITH INNOVATIVE VISION” for his work on sustainable peace & Development. He also played a pivotal organizational, technical role in strategic alliances with a vision to promote innovation. Prof Sinha is the Founder Leader of World Academy of Informatics and Management Sciences and Founder President of Innovation Society (India) a platform for Innovative Culture Establishment in PAN India focusing the Youth. He made contribution in framing of India Africa ICT Knowledge Consortium for the Promotion of Bilateral Relation among India and Africa. Prof. Sinha believes that without nourishment of Innovative culture a developing countries may not gain ‘Developed’ status and all his efforts are in same direction. Prof Sinha is Secretary General of Indo Global Chamber of Commerce, Industries and agriculture an international agency promoting and supporting innovative culture through various chambers and professional excellence. He is also associated with Professional Body as Member/Board of Directors like CSI, Brain Rhyme, AAGSON United Kingdom, SMIASIT Singapore, SIAEng, Hong Kong. Prof. Sinha is Country Director of Public Opinions International an organisation involved in promoting the United Nations Sustainable Development Goals through informed dissemination, Public Awareness, Public Relations, issues Research, training and mentor-ship, Investment Advisory services, etc. He is recipient of several prestigious awards and Honored for Excellence to Promote innovate Culture and Made in India Initiative in conference/seminar/meetings in the SRI LANKA, BHUTAN, NEPAL, UAE, UNITED KINGDOM and PAN India. Presently he is associated with Rajasthan University. Prof Sinha is Academician, Author of Numerous Books, Journals, Mentor of PhD Research Scholars, Innovative Research with SAP Consultants, Quality Assurance Professional.

3:30 – 4:00 (Wednesday) – Room 1

Jedsada Timpontian, Ph.D.
Assistant Dean at International Academy of Aviation Superior
King Mongkut’s institute of Technology Ladkrabang (KMITL) Thailand
Executive Board Member, Thai Association for Cooperative Education

Dr. J. Timpontian is a faculty member in the field of Logistics Management, International Academy of Aviation Industry (IAAI) at King Mongkut's Institute of Technology Ladkrabang (KMITL) and serving as Executive Board Member for Thai Association for Cooperative Education (TACE). Before joining at KMITL, he worked for Manufacturing Business, Logistics Business, and Academic Institute, King Mongkut's University of Technology North Bangkok (KMUWBN). He received a Bachelor's degree in Agro-Industry from Prince of Songkla University (PSU), Thailand. He holds a Master of Engineering in Industrial Engineering from KMUTNB. He completed Certificate program in Industrial Engineering & Management from Asian Institute of Technology, Thailand. He completed PhD under Faculty of Mechanical Engineering (Specialization in Industrial Engineering, Logistics and Supply Chain Management) at Department of Industrial Engineering, College of Engineering, Guindy, Anna University (AU), Chennai, sponsored by Government of India Doctoral Scholarship. Timpontian's research interests include Supply Chain Risk Management, Quality & Production Management, Statistical and Fuzzy Quality Control, Application of Fuzzy Logic and Neural Network for Production and Distribution Problems, System Dynamics Simulation and Multi-Criteria Decision Models. From last decade, he was in-charged as Associate Dean and chair for cooperative education committee at his academic department, King Mongkut’s University of Technology North Bangkok. He had been responsible for planning, organizing, leading, monitoring, and controlling for cooperative and work-integrated education. Apart from administration and management functions above, he was in-charged as academic supervisor for more than 30 cooperative and work-integrated education (CWIE) students projects. Several CWIE projects that he had supervised were selected for awards both in regional and national level. He was a chair of steering committee for Cooperative Education National Conference (Consortium of Cooperative Education in Industry Management) in 2015 and 2017. Jedsada Timpontian was awarded for Staff of the Year (faculty level) by King Mongkut's University of Technology North Bangkok in 2015, and Sustained Superior Performance Award in 2015 by Cooperative Education Network of the Higher Central Region, Office of Higher Education Commission, Ministry of Education, Royal Thai Government. He recently joined as faculty member of Logistics Management Program, International Academy of Aviation Industry, King Mongkut’s Institute of Technology Ladkrabang (KMITL).
Workshop on Outcome Based Education (OBE)
Session Chair: Dr. Alina Shamsuddin, UTHM, Malaysia
2:30 – 4:00 pm (Wednesday) - Room 9

Alina Shamsuddin (Associate Prof. Dr.)
Deputy Director, Center of Academic Development and Training (CAD)
Universiti Tun Hussein Onn Malaysia
Parit Raja, Johor, Malaysia

Dr. Alina Shamsuddin is currently an Associate Professor (Technology Management) with the Faculty of Technology Management and Business of Universiti Tun Hussein Onn Malaysia. Being a founding member of her faculty, Dr. Alina is not only knowledgeable on the immediate related fields of performance measurement, production and management, she is also an expert on educational quality assessment and assurance, with 5-year experience as an auditor for the Malaysian Quality Agency (MQA). Her research concerns are myriad but inter-related, encompassing higher education quality assurance and reforms, effective teaching and learning, as well as innovative technology adoption for SMEs. Currently heading the Unit of New Programmes Development, Dr. Alina is consolidating her effort to make a difference in the quality of programme design and delivery in the overall higher educational arena, institutionally and nationally.

Dr. Chan Chee-Ming
Associate Professor and Deputy Dean (Academic and Research),
Centre for Graduate Studies
Universiti Tun Hussein Onn Malaysia
Batu Pahat, Johor, Malaysia

Chee-Ming Chan is an Associate Professor with the Civil Engineering Technology Department, Faculty of Engineering Technology, Universiti Tun Hussein Onn Malaysia. She is presently holding the office of Deputy Dean in Academic and Research at the Centre for Graduate Studies in the University. Her area of expertise includes geo-materials, engineering education and higher education improvement. More recently, Dr. Chan’s current work on dredged materials from Malaysian waters has gained momentum and support from the Ministry of Science, Technology and Innovation and Department of Marine, Malaysia. She is also involved in professional bodies, including the Society for Engineering Education Malaysia (SEEM), Malaysian Geosynthetics Society (MyGSS), Institution of Engineers Malaysia (IEM), Board of Engineers Malaysia (BEM), and is an education quality auditor for the Malaysian Qualification Agency (MQA). From 2009-11, Dr. Chan served as a Postdoctoral Research Fellow at the Port and Airport Research Institute (PARTI), Japan.

Dr. Azeanita Suratkon
Senior Lecturer at the Faculty of Civil & Environmental Engineering
Lead – Department of Building and Construction Engineering
Universiti Tun Hussein Onn Malaysia
Johor, Malaysia

Dr. Azeanita Suratkon is currently a Senior Lecturer at the Faculty of Civil and Environmental Engineering, and leads the Department of Building and Construction Engineering. Dr. Azeanita had a multi-national education background: bachelor’s at UTM (Malaysia), Master’s at Herriot-Watt University (Scotland) and PhD at Chiba University (Japan). Her international exposure has given her the leverage for a multi-faceted approach in her chosen field of study, which primarily revolves around construction management, risk assessment and procurement issues. Dr. Azeanita also aims to improve the current engineering education practice, in line with the nation’s Outcome-based Education philosophy, by drawing on her rich multi-discipline background. Her continuous effort in enriching construction management and higher educational reforms are driven forward in collaboration with Japanese counterparts too.

4:00 - 4:30 pm: Networking Break

Session VIII: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Wednesday)
Session Chair: Dr. Eldon Caldwell, University of Costa Rica

4:30 – 5:00 (Wednesday) – Room 1

Dr. Trynos Gumbo
Associate Professor and Head of the Department of Town and Regional Planning
Faculty of Engineering and the Built Environment, University of Johannesburg (UJ), South Africa

Trynos Gumbo is an Associate Professor and Head of the Department of Town and Regional Planning within the Faculty of Engineering and the Built Environment in the University of Johannesburg (UJ). He holds a PhD from Stellenbosch University, South Africa as well as masters and honours degrees from the University of Zimbabwe (UZ), Zimbabwe. He has previously worked in the Africa Institute of South Africa of the Human Sciences Research Council as a research specialist and Acting Manager for the sustainable development programme. Prof Gumbo has also worked as an international instructor in the urban management masters programme within the Ethiopian Civil Service University College (ECSUC) in Addis Ababa in Ethiopia. Before, Prof Gumbo had worked as lecturer and Head of Department at the National University of Science and Technology (NUST) in Zimbabwe. He has attended and presented at several national and international conferences and has published widely on urban development and management. His research interests include urban transportation planning and management, sustainable and smart cities development, housing and economic informality, green economy and renewable energy generation from waste and innovative building technologies and materials.

Emaculate Ingwani
Senior Lecturer in the Department of Urban and Regional Planning
School of Environmental Science
University of Venda in South Africa

ID 449 Exploring the Efficacy Of Blended Learning and Innovative Assessments in Town Planning Students at the University of Johannesburg
Trynos Gumbo and Emaculate Ingwani, University of Johannesburg, South Africa
Dr. Niraj Gupta
Dean and Professor, FoME, Shri Ramswaroop Memorial University, Lucknow, Uttar Pradesh, India

Dr. Niraj Gupta graduated in Mechanical Engineering from IIT Bombay and did his Master’s degree in Industrial Engineering from IIT Bombay in 1996. He was awarded PhD in supply Chain Management in 2011. He has a unique blend of teaching – Industry-Research experience of over 20 years. He had been a faculty member at Integral University, IIIT, NIILM and a visiting faculty at the AIMA, New Delhi and IIM Ghaziabad. He has also served in past Festo (German MNC) and Safexpress, New Delhi. At Festo, he has trained engineers from TATA Motors, Maruti, SAMTEL, Hero Honda etc. in the area of pneumatics & electropneumatic. At Safexpress, he was heading Safe extension cell. He has also worked in a DST sponsored project,” Technical back up in entrepreneurship development program” at IIT Delhi. He had also undergone training program at IIT Kharagpur & IIT Kanpur in the area of Quality & Supply Chain Management respectively. He has also worked in the consultancy project of Crompton Greaves, PAL & Garware in the area of Productivity, Quality and Integrated Production & Distribution System respectively. He has conducted 5 days short term course in supply chain management for teachers and industry practitioners in 2015-2016. Presently, working as a Dean and Professor at Shri Ramswaroop Memorial University, Barabanki. He is responsible for all academic operation of FoMe including the planning, delivery, performance and quality management of Teaching – Learning – Evaluation process. Some of his responsibilities, he has handled are designing of syllabus, academic instruction, ordinances (U.G.+P.G), Supervision of 10 dissertations at M. Tech level, guiding 3 PhD in the area of Supply Chain Management, Lean Six Sigma and Knowledge Management, publication of 25 research paper and one book with Lambert Publication on ERP, Chairing of Technical Session at various conference etc. Dr. Niraj Gupta is a Fellow of Institute of Engineers (India). His area of interest include: Supply Chain Management, Quality (TQM, Six Sigma, ISO) & Operations Management related topics.

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

Dr. Eldon Caldwell, is full professor/ Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Suma Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/University of Nevada, USA. Currently, he is a doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013. Dr. Caldwellis “Lean Systems Certificated Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prize. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Suma Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at IITESM, Mexico. He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA. Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quiros & CIA-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panama, Costa Rican Institute for Electricity, RTC–Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.

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

Mr. Shandilya is an operations and quality management professional, consultant and a trainer. He is a key professional for deployment of Quality Management system, Lean manufacturing system, Six Sigma, TQM, TPM, Problem Solving and Operational Performance Excellence. His diverse range of consulting & training experience includes providing onsite vendor up-gradation through cluster activity, vendor system audit, conducting public & in-house trainings courses and onsite support. He has supported and mentored various organization for activities related to implementation of tools like SPC & MSA, FMEA, IATF 16949, APQP & PPAP, Six Sigma, Lean Manufacturing, TPM, Problem Solving, Plant Maintenance, DOE, TQM etc. He has been a recipient of numerous prestigious awards for his contribution in Industry like National merit award, speaker of the session award, best researcher award, best trainer award, best consultant award, young leader award and so on. He has worked with various big business houses of the country like HERO Motocorp Limited, Maruti Center for Excellence – Maruti Suzuki India Limited and VISA Steel Limited. Currently, Sumit is associated with the following organizations: Director – Institute for Industrial Performance and Engagement, Director & C.E.O. – Academy for Performance & Excellence, Executive Director – Global System Certifications and Adjunct Professor – School of Management, BML Munjal University, Academically, Sumit is a: Ph.D. Research Fellow, BML Munjal University, Gurgaon, M.S. – Business Analytics, BITS Pilani, M.B.A. – Operations, Symbiosis, Pune, M.Sc. – Applied Statistics, I.G.N.O.U., PGD – Project Management, MIT School of Distance Education, Pune and B.Tech. – Mechanical Engineering, Nagpur University. He is also a Master Black Belt in Lean Six Sigma, Lead Auditor – ISO 9001, ISO 14001, ISO 27001 and ISO 45001, Quality Council of India empanelled Lean consultant and a certified ZED consultant. He is continuously contributing to the professional world through his following associations: Member & Chair, Communication – American Society for Quality (ASQ) India, Delhi LMC, Life Member – Quality Circle Forum of India, Associate Member – Society for Automotive Engineers (SAE), India, Member & Core Committee member – National Institute for Quality & Reliability (NIQR), Northern Region. Apart from the academics, Sumit has been a national level sportsman in athletics and has won various medals for State, University and College.

Awards Keynote: Dr. Robert de Souza, Executive Director, The Logistics Institute - Asia Pacific, NUS, Singapore

Thursday (March 7, 2019)
8:00 – 8:30 (Thursday) – Room 1

Sumit Shandilya
Director & C.E.O., Academy for Performance & Excellence, Gurgaon, Haryana, India

Dr. Eldon Caldwell, is full professor/ Cathedraticus of the University of Costa Rica, Central America; Doctor (Ph.D.) in Industrial Engineering major in Lean Operations Engineering. He developed new heuristic sequencing algorithms in order to reduce cycle times and received Suma Cum Laude in his doctoral dissertation and Academic Crown Excellence Award in Autonomous University of Central America/University of Nevada, USA. Currently, he is a doctoral researcher at the (Dr. Sc.) Computing Science Program at the University of Alicante, Spain and doctoral researcher at the Dr. Ed. Program at University of Costa Rica, receiving the Academic Excellence Award 2013. Dr. Caldwellis “Lean Systems Certificated Specialist”, MAPV-University of Nevada, USA, ASQ-Six Sigma Black Belt Certified Trainer, and Spanish publications technical reviewer of Gary Conner, 2002 Shingo Prize. Also, Dr. Caldwell has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 25 years as an educator, researcher and promoter of development of industrial engineering. Dr. Caldwell earn his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica (Suma Cum Laude) and he earn a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico (Costa Rica); M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at IITESM, Mexico. He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Pub. and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA. Dr. Caldwell served as Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quiros & CIA-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has 25 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panama, Costa Rican Institute for Electricity, RTC–Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, and many others. Currently, Dr. Caldwell is Director of Industrial Engineering Department at Engineering School of University of Costa Rica.

7:00 - 10:00 pm, Wednesday - Awards Dinner

Awards Keynote: Dr. Robert de Souza, Executive Director, The Logistics Institute - Asia Pacific, NUS, Singapore

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13th IEOM Global Engineering Education
Bangkok, Thailand, March 5-7, 2019

Ninth Annual International Conference

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8:30 – 9:00 (Thursday) – Room 1

**Dr. Kin Keung Lai**  
Chair Professor  
Department of Management Science, College of Business  
City University of Hong Kong, Hong Kong

Kin Keung Lai is a Chair Professor of Management Science at City University of Hong Kong, Hong Kong. He is a certified senior enterprise risk manager and a fellow of the Hong Kong Institute of Directors and the Asia Pacific Association of Industrial Engineering and Management Systems. He provides consulting in supply chain and logistics management, operations analysis and management, business problem solving and marketing analysis, and financial management and engineering. He is currently president of the Asia Association of Risk and Crisis Management and the International Association on Financial and Risk Management. He is vice president of the International Federation of Logistics and Supply Chain Society and founding chairman of the Operational Research Society of Hong Kong. He serves as editor-in-chief for two international journals and is on the editorial boards of 17 others. He is the author of more than 40 books and 700 publications. Kin has earned many honors and awards. World Executive Weekly named him among the Ten Most Influential Management Professors in China in 2008. He was named the Chang Jiang Scholar Chair Professor, Ministry of Education, China, in 2009; he was the recipient of the Joos S. Moon Distinguished International Alumni Award, Michigan State University, in 2009; and was ranked fourth among the top 20 academic authors in the area of business intelligence and analytics worldwide in a special issue of MIS Quarterly in 2012. Kin established a charity organization—Care for Children Foundation—20 years ago and has served as vice chairman since then; he organizes projects including rehabilitation, education, foster care, and disaster relief in China. He has lived in Hong Kong since graduating from MSU in 1977.

9:00 – 9:30 (Thursday) – Room 1

**Dr. Jafri Mohd Rohani**  
Head of the Industrial Engineering Programme  
Department of Materials, Industrial and Manufacturing Engineering  
Faculty of Mechanical Engineering  
Universiti Teknologi Malaysia  
Skudai, Johor, Malaysia

*Knowledge, Attitude and Practices of Occupational Safety and Health in Construction Industry Management (OSHCIM) from perspective of Clients, Designers and Contractors*

Jafri Mohd Rohani is a Senior Quality and Statistical Engineering Lecturer. He is also Head of the Industrial Engineering Programme at the Department of Materials, Industrial and Manufacturing Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor. Currently, he is the President of Johor Cost and Quality Engineers Society. He is a member of the American Society for Quality (ASQ) and Human Factor Society of Malaysia.

9:40: Keynote (Thursday): **Dr. Chen-Fu Chien**, Tsinghua Chair Professor, Department of Industrial Engineering & Engineering Management, National Tsing Hua University, Convenor, Industrial Engineering and Management Program, Ministry of Science & Technology and Director, Artificial Intelligence for Intelligent Manufacturing Systems Research Center, Ministry of Science & Technology, Hsinchu, Taiwan

10:20: Keynote (Thursday): **Dr. Josu Takala**, Professor, Industrial Management and Materials Management, University of Vaasa, Vaasa, Finland

11:00 - 11:30: Networking Break

Session X: Global Engineering Education (Room 1)  
Session Chair: Dr. Jiří Tupa, University of West Bohemia, Plzen, Czech Republic  
11:30 am – 1:00 pm (Thursday)

11:30 – 12:00 (Thursday) – Room 1

**Dr. Muhammad Hisjam**  
Department of Industrial Engineering, Faculty of Engineering  
Universitas Sebelas Maret, Surakarta, Indonesia

*Problem Based Learning for Techno-economic Analysis for Logistics System Course: Case in a State-owned Warehouse*

Dr. Muhammad Hisjam is with the Department of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret, where he has been since 1998. He received his Bachelor degree from Universitas Gadjah Mada, Indonesia in 2002. He received his Ph.D. in Environmental Science from Universitas Gadjah Mada, Indonesia in 2016, with his dissertation title is "Sustainable Supply Chain Model in Export Oriented Furniture Industry in Indonesia (Case in Perum Perhutani)". His research interests are in supply chain, logistics, business and sustainable development. He has published some papers in Journals, Conference Proceedings, and chapter books in his research area.

ID 774: Problem Based Learning for Techno-economic Analysis for Logistics System Course: Case in a State-owned Warehouse  
Muhammad Hisjam, Department of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret, Indonesia
Dr. Mohammad Khasawneh, Ph.D.
Professor & Chair, Systems Science and Industrial Engineering
Associate Director, Watson Institute for Systems Excellence
Director, Healthcare Systems Engineering Center
Graduate Program Director, Executive Master of Science in Health Systems
Thomas J. Watson School of Engineering and Applied Science
State University of New York at Binghamton, Binghamton, New York 13902, U.S.A.

Dr. Mohammad Khasawneh is a Professor and Chair of Systems Science & Industrial Engineering at Binghamton University. He received his Ph.D. in Industrial Engineering from Clemson University, South Carolina, in August 2003, and his B.S. and M.S. in Mechanical Engineering from Jordan University of Science and Technology, Jordan, in 1998 and 2000, respectively. Dr. Khasawneh’s research is focused on healthcare systems engineering, operations management, and data science. Dr. Khasawneh received his Doctorate in the field of Industrial Engineering and Management from Institut Teknologi Bandung (Indonesia), Master of Science in Management from Universitas Indonesia and Bachelor of Engineering in Industrial Engineering from Institut Teknologi Bandung. He currently is the Head of Department of Industrial Engineering, Universitas Sebelas Maret (UNS). In UNS, he is Asset Auditor for Internal Audit Unit and Coordinator of Industrial Engineering and Techno-Economy (RITE) Research Group. He also as General Chairman of BKSTI (Agency for Cooperation of Higher Education of Industrial Engineering in Indonesia) FY 2017-2020. His research interests are Logistics & Supply Chain Management, Engineering Economy & Cost Analysis, and Technology Commercialization. He obtained 25 research grants and published 86 articles (Scopus indexed). He also has published 3 monographs and 7 book chapters. He co-supervised and graduated 1 doctorate student, supervised 7 Masters students (4 has graduated), and supervised 74 undergraduate students (67 graduated).

ID 773: Learning a Supply Chain Management Course by Problem Based Learning: Case Studies in the Newspaper Industry
Wahyudi Sutopo, Department of Industrial Engineering, Department of Industrial Engineering, Universitas Sebelas Maret (UNS), Surakarta, Indonesia

Since 2003, Dr. Khasawneh has been leading a wide spectrum of projects with U.S. hospital systems that focus on applied research in the areas of healthcare systems engineering, operational excellence, and data science. His health systems engineering center generates over one million US$ annually in sponsored research from various healthcare and hospital systems. Building on a successful research program and an academic concentration/minor, at the graduate/undergraduate levels, Dr. Khasawneh developed a 12-month Executive Master of Science with a Health Systems Concentration, which has been offered in Manhattan since 2013. He has also been instrumental in developing a new M.S. degree program in Healthcare Systems Engineering. Over the years, Dr. Khasawneh presented his research at various national and international conferences, including China, India, Mexico, Jordan, Korea, Thailand, Japan, and Canada. Dr. Khasawneh’s research activities thus far have led to 40+ refereed journal articles, 100+ conference articles, one patent, and two new invention disclosures. In addition, his sponsored research efforts thus far have resulted in over eight million US$ in external funding and over 39 million US$ in software/equipment grants.

In 2006, Dr. Khasawneh received a U.S. Air Force Summer Faculty Fellowship to evaluate the use of multi-sensory cues to improve the landing of unmanned aerial vehicles. In 2009, he received another fellowship from the U.S. Air Force Office of Scientific Research to design ergonomic computer workstations for very large displays. Dr. Khasawneh received the State University of New York (SUNY) Chancellor’s Award for Excellence in Teaching in 2011, the University Award for Outstanding Graduate Director in 2015, and the University Award for Excellence in Research in 2018. He has been a member of the Alpha Pi Mu and Alpha Epsilon Lambda honor societies. Dr. Khasawneh was also recently honored with the Diplomate status with the Society for Health Systems (SHS), a professional society within the Institute of Industrial and Systems Engineers (IISE) that supports the industrial engineering profession and individuals involved with improving quality and productivity within healthcare. Dr. Khasawneh also holds an honorary visiting professor position with the Industrial Engineering Department at Hebei University of Technology in Tianjin, China.
Dr. Denchai Woradechjumroen is a Head and Founder of Intelligent Building Collaboration (IBC) Research Unit which is the collaboration between Sripatum University (SPU) and Institute of Field Robotics (FIBO), King Mongkut's University of Technology Thonburi (KMUTT) located at KX Knowledge Exchange Building. This national smart building laboratory serves influential Government organization such as Bank of Thailand (BOT), manufacturers, building consultant and designer firms, building automation contractors and energy management companies such as EEC Engineering Network Co., Ltd, Africvs, Co., Ltd, Goldmarktech Co., Ltd, Jardine Engineering Corporation as R&D center. He received his Ph.D. in Architectural Engineering from University of Nebraska - Lincoln in August 2015, and his B.S. and M.S. in Mechanical Engineering from Chulalongkorn University, Thailand, in 2005 and 2009, respectively.

Dr. Woradechjumroen has special interest in developing low-cost, non-invasive, plug-n-play and high performance diagnostic technologies for heating, ventilation, air-conditioning unit and refrigeration (HVAC&R) operations, and smart building energy modeling and control in high-rise commercial buildings and commercial supermarkets. For the past 8 years as a leader and innovator of modern HVAC&R industry in Thailand, his experience involves developing and implementing monitoring, control, automated fault detection and diagnosis (AFDD) and soft-repair algorithms to successfully penetrate the Thai HVAC&R market.

Currently, he successfully launches modern and commercial products; one of them iBAS (intelligent building automation system based AFDD algorithms) used for monitoring based commissioning (MBCx) process for assuring overall system performance of green buildings. For this novel product in Thai HVAC&R areas, iBAS is implemented via the SPU and FIBO alumni students namely "TIE smart solutions Co., Ltd" under the work integrated learning (WIL) project between EEC Engineering Company and IBC Research Unit.

Aulia F. Hadining, Sukanta and Wachid Hidayat, Industrial Engineering Department, State University of Singaperbangsa Karawang, Karawang, Indonesia

ID 143: An Investigation of Student Perspective for E-Learning Readiness Measurement
Aulia F. Hadining, Sukanta and Wachid Hidayat, Industrial Engineering Department, State University of Singaperbangsa Karawang, Karawang, Indonesia

3:30 – 4:00 (Thursday) – Room 1
Professor Eui H. Park, Ph.D.
Graduate Program Coordinator
Professor, Department of Industrial and Systems Engineering
North Carolina A&T State University
Greensboro, North Carolina, USA

Dr. Eui H. Park, Professor of the Department of Industrial and Systems Engineering (ISE) at North Carolina A&T (NC A&T) State University, received his Ph.D. from Mississippi State University in 1983. Upon completion of his Ph.D., he joined NC A&T and has since initiated and developed a successful Human-Machine Systems Engineering program and interdisciplinary manufacturing program. He has also conducted STEM outreach programs, the Para-Research Program, Partnership in Education and Research, REU, and RET, for the past sixteen years. He is the founder of the Piedmont Triad Center for Advanced Manufacturing Manufacturing. Dr. Park was also the Chairperson of the ISE Department for sixteen years from July 1990. He has been an IEEE Fellow since 2000. His research interest include Human-Machine Systems Engineering and Quality Assurance. He has been a principle investigator in 24 awarded funded research projects totaling over $12 million in the past ten years.

4:00 - 4:30: Networking Break

Session XII: Global Engineering Education (Room 1) - 4:30 – 6:00 pm (Thursday)
Session Chair: Manohar Madan, University of Wisconsin-Whitewater, WI, USA

4:30 – 5:00 (Thursday) – Room 1

Denchai Woradechjumroen, Ph. D.
Head and Founder of Intelligent Building Collaboration (IBC) Research Unit
KX Knowledge Exchange - KMUTT
Lecturer at Sripatum University, Thailand

Work integrated learning (WIL) under smart building technology collaboration from a research group to startup companies

Dr. Denchai Woradechjumroen is a Head and Founder of Intelligent Building Collaboration (IBC) Research Unit which is the collaboration between Sripatum University (SPU) and Institute of Field Robotics (FIBO), King Mongkut's University of Technology Thonburi (KMUTT) located at KX Knowledge Exchange Building. This national smart building laboratory serves influential Government organization such as Bank of Thailand (BOT), manufacturers, building consultant and designer firms, building automation contractors and energy management companies such as EEC Engineering Network Co., Ltd, Africvs, Co., Ltd, Goldmarktech Co., Ltd, Jardine Engineering Corporation as R&D center. He received his Ph.D. in Architectural Engineering from University of Nebraska - Lincoln in August 2015, and his B.S. and M.S. in Mechanical Engineering from Chulalongkorn University, Thailand, in 2005 and 2009, respectively.

Dr. Woradechjumroen has special interest in developing low-cost, non-invasive, plug-n-play and high performance diagnostic technologies for heating, ventilation, air-conditioning unit and refrigeration (HVAC&R) operations, and smart building energy modeling and control in high-rise commercial buildings and commercial supermarkets. For the past 8 years as a leader and innovator of modern HVAC&R industry in Thailand, his experience involves developing and implementing monitoring, control, automated fault detection and diagnosis (AFDD) and soft-repair algorithms to successfully penetrate the Thai HVAC&R market.

Currently, he successfully launches modern and commercial products; one of them iBAS (intelligent building automation system based AFDD algorithms) used for monitoring based commissioning (MBCx) process for assuring overall system performance of green buildings. For this novel product in Thai HVAC&R areas, iBAS is implemented via the SPU and FIBO alumni students namely "TIE smart solutions Co., Ltd" under the work integrated learning (WIL) project between EEC Engineering Company and IBC Research Unit.

5:00 – 5:30 (Thursday) – Room 1
Dr. Manoj Soni  
Associate Professor, Birla Institute of Technology and Science, Pilani, Jhunjhunu, Rajasthan, India

Game Based Evaluation and Learning (GABEL)

Dr. Manoj Kumar Soni, is an Associate professor in Mechanical Engineering department at BITS Pilani. He is B.E. in Mechanical Engineering, M.E. in Thermal Power Engineering, Ph.D. in the area of Energy Efficiency. He has total 22+ yrs of teaching and research experience. He rendered his services as a faculty in VNIT Nagpur (NIT, Nagpur) for seven years (1995-2002). He joined BITS Pilani in 2002. He is also the coordinator of Centre for Renewable Energy and Environment Development (CREED) at BITS, Pilani. His research interest includes solar thermal, thermal engineering, renewable energy and energy efficiency. He has total 40 publications in high impact factor international journals and international conferences and one patent in his name. He has delivered key note addresses at various national conferences and workshops. As a research team member, he has visited PT Indo Bharat Rayon, Indonesia an Aditya Birla Group unit in 2011 and in 2015 he was awarded Summer Scholarship under university immersion scheme of BITS Pilani and he visited University of South Florida, Tampa and Columbia University, New York. He has special interest in spirituality and he has mixed the philosophies of spirituality and thermodynamics. Based on it he has delivered special lectures on Thermodynamics- A philosophy of life and A date with entropy at various institutes. His coveted lecture on Spiritual thermodynamics is very well appreciated by the students, academicians and industries. He delivered his Spiritual Thermodynamics talk at University of South Florida, Tampa, USA and University of Baleric Island, Spain. Out of his five PhD students in the field of solar and solar thermal one has successfully completed. He has guided over 50 M. Tech and first degree thesis. He has experimented with lot of pedagogical innovations, like team based and game based learnings in his various courses.

At BITS he is actively involved in industrial collaborations in Work Integrated Programs Division as a coordinator of various collaborative programs: BS and B.Tech Power Engg (Aditya Birla Group, NTPC, NDPL, THDC, ESSAR Power, Tata Power, JSW Energy), BS and B.Tech Process Engg (Aditya Birla Group Cement Business UltraTech, Hindalco Industries, Birla Cellulosic, Indogulf Fertilizers, Vedanta Aluminium), BS Engg Design (L&T IES, Vadodara), MS Engineering Management (Mahindra & Mahindra), MS Embedded Systems (L&TIES), MS Pharmaceutical Operations & Management (Woodhardt), MS Manufacturing Management (Vedanta Aluminium), and MS Automotive Engg Programs (Tata Technologies). He is Fellow of Institute of Engineers, and Life member of International Solar Energy Society (Gold Member), and Energy and Fuels Users Association of India (ENFUSE). He is associate member, Solar Cookers International, USA and Senior Member, Universal Association of Mechanical and Aeronautical Engineers i.e UAMAE.

5:30 – 6:00 (Thursday) – Room 1

Kingsley Gnanendran  
OIM Department, The University of Scranton  
Scranton, PA 18510, USA

Kingsley Gnanendran is a professor of operations management and director of the online MBA program at the University of Scranton, Pennsylvania, USA. He earned a B.S. in mechanical engineering from the University of Sri Lanka, an M. Eng. in industrial engineering and management from the Asian Institute of Technology, Bangkok, and a PhD in management science from the University of Tennessee-Knoxville. His research interests involve the application of optimization modeling to supply chains, and his publications have appeared in: Decision Support Systems, International Journal of Production Research, European Journal of Operational Research, and International Journal of Production Economics, among others. Dr. Gnanendran has been a Visiting Professor at the University of Waterloo (Ontario, Canada), Capital University of Economics and Business (Beijing), and Dayeh University (Taiwan). He is a member of INFORMS and APICS.

Manohar Madan  
ITSCM Department, University of Wisconsin-Whitewater  
Whitewater, WI 53190, USA

Manohar Madan is a Professor in the Information Technology and Supply Chain Management Department in the College of Business and Economics at the University of Wisconsin-Whitewater. His teaching and research interests are in the area of Operations and Supply Chain Management. He has a Ph.D. in Operations Management from the University of Tennessee. Manohar’s research has been published in many professional journals such as the Journal of Operations Management, IIE Transactions, OMEGA, International Journal of Operations and Production Management, International Journal of Production Research and the Journal of Operational Research Society. He is a member of APICS, and also is certified as CPIM by APICS.

ID 674 Heuristics for Course Planning in Degree Programs  
Kingsley Gnanendran, University of Scranton, PA, United States  
Manohar Madan, University of Wisconsin-Whitewater, WI, United States
Continuous Innovation

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Dr. Ahad Ali, Lawrence Technological University, Southfield, Michigan, USA

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Dr. Abdul Rahim, University of New Brunswick at Fredericton, Canada

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Dr. Hamid Parsaiei, Texas A&M University (College Station) and Qatar

Industry Solutions Chairs
Edy Ramly, Lean Six Sigma Master Black Belt, EFR Certification, Malaysia
Masaru Tezuka, Hitachi Solutions East Japan, Ltd., Japan

Special Track on Industry 4.0 for SMEs Chair
Dr. Ajayit Sundapang, Dept. of Industrial Eng., Chiang Mai University, Thailand

Women in Industry and Academia Chairs
Resh Plaha, Crystal Quality, UK
Dr. Ilham Kussani, A/ Khawawyn University, Morocco

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Publication Chair
Dr. Mohammed Rahman, Central Connecticut State University, USA

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Dr. Dada Shetty, University of Hartford, Connecticut, USA
Dr. Hamid Seidoddini, University of Wisconsin-Milwaukee, USA
Dr. Alfredo Soeiro, University of Porto, Portugal
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Dr. Masine Md. Tap, Universiti Teknologi Malaysia
Dr. Zuikifli Mohamed Uddin, Universiti Utara Malaysia
Dr. Alok Verma, Old Dominion University, Norfolk, Virginia, USA
Dr. Venkata Seshachala Sarma Yadavalli, Universiti of Pretoria, South Africa
Dr. Hari Agung Yuniarto, Universitas Gadjah Mada, Indonesia
Dr. Li Zheng, Tsinghua University, China
Dr. Henk Zijm, Dutch Institute for Adv Logistics, University of Twente, Netherlands
Prof. K Mpofo, Gibela Research Chair in Manufacturing and Skills
Development, Faculty of Engineering and the Built Environment, Tshwane University of Technology, Pretoria, South Africa

Global Engineering Education Committee

Dr. Abu Masud, Wichita State University, Kansas, USA (Chair)
Dr. Hamid Parsaiei, Texas A&M Univ. (College Station) and Qatar (Co-Chair)

Program Committee

Dr. M. Khadem, Sultan Qaboos University, Muscat, Oman (Co-Chair)
Dr. Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia (Co-Chair)
Dr. Rusun Ziadilin, Keimyung University, Daegu, South Korea
Dr. Lina Aboueljelimne, Industrial Engineering Program, École Nationale Supérieure des Mines de Râbet (ENSMR), Morocco

Industry Solutions Committee
Amine Belhadi, Industrial Engineering Research Team, Higher School of Technology, Safi, Cadi Ayyad University, Marrakech, Morocco
Navpreet Singh Chandok, O2i Technologies, India

Dr. Rahul Chougule, Caterpillar India Pvt Ltd, Bangalore, India
Sameh Moh. Nour El-Din A-Razek, Al Ezz Dekhilea Steel Co., Alexandria, Egypt
Abdullah Y Dhafer, Aramac, Saudi Arabia

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Ninth Annual International Conference
March 5-7, 2019
IEOM Bangkok Conference
## Parallel Sessions

**Tuesday, March 5, 2019**

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</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Global Engineering Education I</td>
<td>Industry Solutions I: Industry 4.0</td>
<td>Undergraduate Paper Competition</td>
<td>Graduate Student Paper Competition</td>
<td>Operations Research</td>
<td>Engineering Management</td>
<td>Project Management</td>
<td>Transportatio n and Traffic</td>
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<tr>
<td>9:30</td>
<td>Welcome Address: Dr. Nat Vorayos, Dean, Faculty of Engineering, Chiang Mai University, Thailand - Ballroom</td>
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<tr>
<td>9:40</td>
<td>Opening Keynote I: Dr. Adeeji Baduru, Dean, Graduate School of Engineering and Management, Air Force Institute of Technology Wright-Patterson AFB, Ohio, USA</td>
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<tr>
<td>10:20</td>
<td>Opening Keynote II: Dr. Devdas Shetty, Dean, School of Engineering and Applied Sciences, Professor of Mechanical Engineering, University of the District of Columbia, Washington, DC, USA</td>
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<td>11:00</td>
<td>Networking Break – Foyer Area</td>
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<tr>
<td>11:30</td>
<td>Global Engineering Education II</td>
<td>Panel Session Green Systems and Business Sustainability</td>
<td>Undergraduate Student Paper Competition</td>
<td>Thesis Competition</td>
<td>UG Research and Dissertation Competitions</td>
<td>Project Management</td>
<td>Case Studies</td>
<td>Operations Management</td>
</tr>
<tr>
<td>1:00</td>
<td>Lunch Keynote: Prof. George G.Q. Huang, Chair Professor and Head of Department, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong</td>
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<tr>
<td>2:00</td>
<td>Dr. Zhi Li (Piers), Associate Professor in School of Electromechanical Engineering, Guangdong University of Technology (China) and Deputy Director of National Local Joint Engineering Laboratory for Manufacturing Internet-of-Things Technology</td>
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<td>4:00</td>
<td>Networking Break at Exhibition Hall</td>
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<tr>
<td>4:30</td>
<td>Panel Session Global Engineering Education</td>
<td>Industry Solutions IV</td>
<td>Simulation and SCM Competitions</td>
<td>Optimization</td>
<td>Quality Control</td>
<td>Business Management</td>
<td>Environmental Engineering &amp; Management</td>
<td>Logistics</td>
</tr>
</tbody>
</table>

6:00 – 8:00 pm: Poster Session, High School STEM Competition, Senior Design Poster Competition, Student Chapter Activity Presentations and Faculty Position Networking

**Wednesday, March 6, 2019**

<table>
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<th>Rooms</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Global Engineering Education V</td>
<td>Industry Solutions V</td>
<td>SCM</td>
<td>Modeling and Simulation</td>
<td>Quality Control</td>
<td>Occupational Safety &amp; Health</td>
<td>Waste Management</td>
<td>Facilities and Plant Layout</td>
</tr>
<tr>
<td>9:40</td>
<td>Keynote: - Mr. Anurat Suthamniur, Executive Vice President, Corporate Food Processing &amp; Engineering, CPF (Thailand) Public Company Limited, Silom , Bangkok, Thailand</td>
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<td>10:20</td>
<td>Keynote: - Prof. Dr. Thumrongrut MUNGCHAROEN (RUTT), Chairperson of Energy and Environment Cluster, National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, Thailand, Kasetsart University, Bangkok, Thailand</td>
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<tr>
<td>11:30</td>
<td>Global Engineering Education VI</td>
<td>Panel Session on Supply Chain Sustainability</td>
<td>SCM</td>
<td>Manufacturing</td>
<td>Systems Engineering</td>
<td>Data Analytics and Big Data</td>
<td>e-Business/e-Service/e-Commerce</td>
<td>Energy</td>
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<tr>
<td>1:00</td>
<td>1:00 – 2:30 Networking Lunch Buffet - Ballroom</td>
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<tr>
<td>1:30</td>
<td>Lunch Keynote: Dieter Broeckl, Sr. VP &amp; Head - Digital Factory (DF) Process Industry &amp; Drive (PD) Division, Siemens Limited Thailand</td>
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<tr>
<td>2:30</td>
<td>Global Engineering Education VII</td>
<td>PANEL SESSION Women in Industry and Academia</td>
<td>Sustainability in Supply Chain</td>
<td>Construction Management</td>
<td>Energy</td>
<td>Human Factors</td>
<td>Decision Sciences</td>
<td>Reliability and Maintenance</td>
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<td>4:00</td>
<td>Networking Break at Exhibition Hall</td>
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<tr>
<td>4:30</td>
<td>Global Engineering Education VIII</td>
<td>PANEL SESSION Industry 4.0</td>
<td>Supply Chain Management (SCM)</td>
<td>Data Analytics</td>
<td>Engineering Management</td>
<td>Production Planning</td>
<td>Entrepreneurs hip and Innovation</td>
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7:00 – 10:00 pm, Wednesday.: Conference Awards and Recognition Dinner

**Thursday, March 7, 2019**

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<tbody>
<tr>
<td>8:00</td>
<td>Global Engineering Education IX</td>
<td>Industry Solutions IX</td>
<td>Supply Chain Management (SCM)</td>
<td>Transportation and Traffic</td>
<td>Sustainable Manufacturing</td>
<td>Modeling and Simulation</td>
<td>Healthcare Operations and Services</td>
<td>Product Design and Development</td>
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<tr>
<td>9:40</td>
<td>Keynote: Dr. Chen-Fu Chien, Tsinghua Chair Professor, Department of Industrial Engineering &amp; Engineering Management, National Tsing Hua University, Convener, Industrial Engineering and Management Program, Ministry of Science &amp; Technology and Director, Artificial Intelligence for Intelligent Manufacturing Systems Research Center, Ministry of Science &amp; Technology, Hsinchu, Taiwan</td>
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<tr>
<td>10:20</td>
<td>Keynote: Dr. Josu Takala, Professor, Industrial Management and Materials Management, University of Vaasa, Vaasa, Finland</td>
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<tr>
<td>11:30</td>
<td>Global Engineering Education X</td>
<td>PANEL SESSION Quality 4.0</td>
<td>Supply Chain Management (SCM)</td>
<td>Environmental Engineering and Management</td>
<td>Healthcare Operations and Services</td>
<td>Industrial Management</td>
<td>Construction Management</td>
<td>Waste Management</td>
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<tr>
<td>1:00</td>
<td>1:00 – 2:00 Lunch Keynote - Ballroom</td>
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<tr>
<td>4:30</td>
<td>Global Engineering Education XII</td>
<td>Industry Solutions XII</td>
<td>Inventory Control</td>
<td>Decision Sciences</td>
<td>Information Systems and IT</td>
<td>Cybersecurity and AI</td>
<td>Process and Service Improvement</td>
<td>Engineering Economy</td>
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<tr>
<td>6:00</td>
<td>How to Prepare for Higher Studies – Professor Don Reimer and Dr. Ahad Ali - Ballroom</td>
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### March 5, 2019 (Tuesday)

#### Session: 8:00 – 9:30 am

**Room 1**

**Session: Global Engineering Education I**

**Session Chair:** Dr. Syed Ahmad Helmi Al Haddad, Universiti Teknologi Malaysia

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker and Affiliation</th>
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<tbody>
<tr>
<td>8:00 – 9:30</td>
<td>Dr. Ana Luísa Ferreira Andrade Ramos, Assistant Professor of Management and Industrial Engineering (MIE), Department of Economics, Management and Industrial Engineering (DEGEI), University of Aveiro, Campo de Santiago, Aveiro, Portugal</td>
</tr>
<tr>
<td>8:30 – 9:00</td>
<td>Prof. Aurobindo Ogra, BTech (Construction), Masters (Urban &amp; Regional Planning), Masters (Business Economics), Pr PIn (A/1559/2012), MSAPI, MSAAPAM, AITPI, MIUT, MISRS, Lecturer: Department of Town and Regional Planning and Coordinator: Masters in Sustainable Urban Planning and Development (MSUPD), Faculty of Engineering and the Built Environment (FEBE), University of Johannesburg, South Africa</td>
</tr>
<tr>
<td>9:00 – 9:30</td>
<td>Dr. Syed Ahmad Helmi Al Haddad, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, UTM Skudai, Johor, Malaysia, Fellow, Center for Engineering Education (CEE) - UTM</td>
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</table>

**Room 2**

**Session: Industry Solutions I: Industry 4.0**

**Session Chair:** Patrick Dallasega, Free University of Bozen-Bolzano, Bolzano, Italy

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<th>Time</th>
<th>Speaker and Affiliation</th>
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<tbody>
<tr>
<td>8:00 – 9:30</td>
<td>Dr. Apichat Sopadang, Associate Professor, Department of Industrial Engineering, Head of Excellence Center in Logistics and Supply Chain Management (E-LSCM), Associate Dean at the Graduate School, Chiang Mai University, Thailand</td>
</tr>
<tr>
<td>8:30 – 9:00</td>
<td>Maria Teresa Ribeiro Pereira, Fulltime Associate Professor and Coordinator of the CIDEM, Research Center of Mechanical Engineering, Sub-Director of the master course of Mechanical Engineering-branch Industrial management and of the master course of Industrial Engineering &amp; Management of ISEP</td>
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<td>Fernanda A. Ferreira, Adjunct Professor, Department of Mathematics, School of Hospitality and Tourism, Polytechnic Institute of Porto, Portugal</td>
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<td>André Silva, Researcher, Mechanical Engineering-branch Industrial Management of ISEP, Portugal</td>
</tr>
<tr>
<td>9:00 – 9:30</td>
<td>Dr. Patrick Dallasega, Assistant Professor of Project Management and Industrial Plants Design, Faculty of Science and Technology, Free University of Bolzano (Italy)</td>
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<tr>
<td></td>
<td>Sakgasem Ramingwong, Korrakot Yaibuathet Tippayawong and Nilubon Chonsawat, Center of Excellence in Logistics and Supply Chain Management, Chiang Mai University, Thailand</td>
</tr>
</tbody>
</table>

**ID 097** The Development of the Maturity Model to Evaluate the Smart SMEs 4.0 Readiness

Nilubon Chonsawat, Ph.D.’s Degree Program in Industrial Engineering, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Chiang Mai, Thailand

Apichat Sopadang, Department of Industrial Engineering, Excellent Center in Logistics and Supply Chain Management, Chiang Mai University, Chiang Mai, Thailand

**ID 173** Information Systems for Industrial Processes Support and Optimization

Teresa Pereira, Research Center of Mechanical Engineering (CIDEM), Institute of Engineering of Porto of Polytechnic Institute of Porto, ISEP/P.Porto, Rua Dr. António Bernardino de Almeida, Porto, Portugal

Fernanda A. Ferreira, Applied Management Research Unit (UNIAG), School of Hospitality and Tourism of Polytechnic Institute of Porto, Vila do Conde, Portugal

André Silva, Mechanical Engineering Master Student, Institute of Engineering of Porto of Polytechnic Institute of Porto, Portugal

**ID 241** Field Study to Identify Requirements for Smart Logistics of European, US and Asian SMEs

Patrick Dallasega, Industrial Automation and Engineering (IEA), Faculty of Science and Tech., Free University of Bozen-Bolzano, Bolzano, Italy

Manuel Woschan, Chair of Industrial Logistics, University of Leoben, Erzherzog-Johann-Strasse 31, A-8700 Leoben, Austria

Sakgasem Ramingwong, Korrakot Yaibuathet Tippayawong and Nilubon Chonsawat, Center of Excellence in Logistics and Supply Chain Management, Chiang Mai University, Thailand
8:00 – 9:30, TUESDAY  
Undergraduate Student Paper Competition  
Room 3

Session Chair: Judging Committee Chair

ID 117  
Redesign of the Raw Material Collection System for the Reduction of the Integrated Total Costs by Ton in a Steel Company
Carlos Perez Sandi Treviño and Luis Enrique Orozo Rubio, Engineering and Technologies Department, University of Monterrey, San Pedro Garza García, NL México
Jenny Díaz Ramírez, Engineering and Technologies Department, University of Monterrey, Nuevo León, México

ID 254  
Application of Lean Manufacturing at Warehouse with Simulation Approach
Andreas Arga Donovan, Humasian Nindya Eyba and Vidya Rianti Siahaan, Undergraduate of Industrial Engineering Study Program, Pembangunan Nasional Veteran Jakarta University, Jl. RS Fatmawati, Pd. Labu, Cilandak, Kota Depok, Daerah Khusus Ibukota Jakarta, Indonesia

ID 367  
A Scheduling Model for Full Automated Teller Machines
Carlos Ilagian, Angelia Trinidad, John Lorenz Wee and Charlie Sy, Industrial Engineering Department, De La Salle University, Manila, Philippines

ID 379  
Developing an SPC-EPC Unified Framework to Improve Production Disruption in Chemical Industry in Kuwait
Ali Issawy, Bader AlMutawaa, Samer Al khateeb, Osama Ahmad, Abdullah AlHaj Hasan, and Walid Smew, Industrial Engineering Department, American University of the Middle East (AUM), Eqaila Kuwait

ID 667  
Vertical Wind Turbines as Power Plants at the Railroad Tracks
Andreas Arga, Pembangunan Nasional Veteran Jakarta University, Bogor, Indonesia

ID 803  
Calculation of Safety Stock and Bottleneck Minimization with Theory of Constraints Method Approach on Sand Coated Metal Roof Production in XYZ Ltd.
Jason Nathanael Chandra, Lina Gozali, Liliana Jap, Wilson Kosasih, Lamto Widodo, Lithrone Laricha Salomon and Frans Jusuf Daywin, Department of Industrial Engineering, Tarumanagara University, Jakarta, Indonesia

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

Session Chair: Judging Committee Chair

ID 364  
Multi-objective Robust Optimization for the Design of Biomass Co-firing Networks
Jayne Lois G. San Juan and Charlel L. Sy, Industrial Engineering Department, De La Salle University, Manila, Philippines

ID 372  
Disaster Resilience Index: Development and Validation of a Scorecard for Measuring School Disaster Resilience Using Factor Analysis
Romayln L. Galingan, Industrial Engineering and Management, Graduate School, Polytechnic University of the Philippines, Sta. Mesa, Manila

ID 428  
The Paths from Service Quality Dimensions to Customer Loyalty: An Application on Sri Lankan Supermarket Customers
M. T. Dimantha Jayasanka and L. H. T. De. S. Wickramasuriya, Dept. of Decision Sciences, University of Sri Jayawardeneperuma, Gampodawila, Nugegoda, Sri Lanka

ID 492  
Sustainable Model Impact of Reclamation in Coastal North Jakarta (Case Study: A Fishing Village in Kamal Muara, Penjaringan)
Liliana, Naufal Sanca L, Lina Gozali, Teuku Yuni M Zaqoel and Tri Edhi Budhi Soesilo, Tarumanagara University, Jakarta, Indonesia

ID 801  
Critical Success Factors for the implementation of Operational Excellence
Jacobo Tijerina Aguilera and Diego Andrés Martinez Treviño, Extension, Consulting and Research Department, University of Monterrey, NL, Mexico

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

Session Chair: Romayln L. Galingan, Technological Institute of the Philippines, Quezon City, Philippines

ID 760  
Models and Metaheuristics for the Pollution Traveling Salesman Problem
Paolo Toth, Valentina Cavicchiani and Carlos Contreras-Bolton, DEI, University of Bologna, Viale Risorgimento 2, 40136 Bologna, Italy
John W. Escober, Pontificia Universidad Javeriana, Cl. 18 #118-250, Cali, Colombia
Luis M. Escober-Falcon, Technological University of Pereira, Cl. 27 #10-02 Barrio A’ lamos, Pereira, Colombia
Rodrigo Linfati, University of Bio Bio, Av. Collao 1202, Concepcion, Chile

ID 074  
Including Containers with Dangerous Goods in the Slot Planning Problem
Kiros Gebrearegawi Kebedow, School of Mathematical and Statistical Sciences, Hawassa University, Hawassa, Ethiopia
Johan Oppen, Molde University College, Specialized University in Logistics, Molde, Norway

ID 081  
Collision Probability Analysis in a Parallel Machines Model When the Number of Jobs Is Constrained Operations Research
Taiki Otsuka and Eishi Chiba, Department of Industrial and Systems Engineering, Hosei University, 3-7-2 Kajino-cho, Koganei-ku, Tokyo, Japan

ID 086  
Production Optimization of Small – Sized Sugarcane Farms in the Philippines through Optimal Variety Mix using Compromise Programming
Alec Steven L. Ardan, John Ruther A. Faustino, Mariel Gorinda G. Garcia, Patrick Jerome M. Lacap, Marc Jesm Malapitan, Julius C. Palagam, John Rowe V. Pineda and Romayln L. Galingan, Department of Industrial Engineering, Technological Institute of the Philippines, Quezon City, Philippines

ID 821  
Predicting Online Search Intention for Validating Product Halalness Status
Ida Giyanti and Emi Suparti, Industrial Engineering Study Program, Universitas Setia Budi, Surakarta, Indonesia
Wahyudi Sutopo, Research Group of Industrial Engineering and Techno-economics, Department of Industrial Engineering, Universitas Sebelas Maret, Indonesia

ID 888  
Particle Swarm Optimization for Post Box Collection Routing Problem
Warisa Wistapian, Excellent Center in Logistics and Supply Chain Management, Department of Industrial Engineering, Chiang Mai University, Thailand
Kritsada Ananthapanyasut, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Chiang Mai, Thailand

8:00 – 9:30, TUESDAY  
Engineering Management  
Room 6

Session Chair: Ali Massaeli, National Iranian Gas Company, Tehran, IRAN

ID 069  
A Risk Management Based Econometric Modelling of Insurance Underwriting in Engineering Projects
Engr. Ronwaldo J. Reyes and Marvin I. Noroña, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 071  
A Dual Approach to the Harmonized Model between Inventory Reduction and Heijyunka (Production Leveling) Based on the Minimum Average-Energy Principle
Tsuyoshi Kurihara, Certified and Accredited Meteorologist, Hiroshima, Japan
Takaaki Kurahara, Institute for Innovation in International Education, Graduate School of Engineering, The University of Tokyo, Japan
Hiroshi Yamashita, Department of Commerce, Meiji University, 1-1 Kanda-Surugadai, Chiyoda-ku, Tokyo, Japan
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<tr>
<th>ID 073</th>
<th>Virtual DNA (V-DNA) Applications: A Systematic Literature Review</th>
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<tr>
<td>Alaa M. Ubaid and Fikri T. Dweiri, College of Engineering, University of Sharjah, University City, Sharjah, UAE</td>
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<th>ID 686</th>
<th>Data Mining in Healthcare Records: A Review Based on the Kind of Knowledge</th>
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<tr>
<td>Maria Sabastin S., Akshay Anil Nair and Rohit R., Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India</td>
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<th>ID 076</th>
<th>An Employee Retention Model for Millennials in the Philippine Telco Industry</th>
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<tr>
<td>John Jerjie C. Reyes and Marvin I. Norona, School of Industrial Engineering and Engineering Management, Mapua University, Manila City, Philippines</td>
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<th>ID 123</th>
<th>Study on the Classification of Network</th>
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<tr>
<td>Shoichi Kaneko, Faculty of Management Information, Yamanashi Gakuin University, 2-4-5 Sakaori, Kofu city, Yamanashi, Japan</td>
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8:00 – 9:30, TUESDAY    Project Management    Room 7

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<th>The Impact of Total Quality Management Practices on Organizational Performance of SMEs in Pakistan</th>
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<tr>
<td>Kama Anam, Faculty of Management Scences, Sir Syed CASE Institute of Technology (SSCIT), Islamabad, Pakistan</td>
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<th>Modeling and Analyzing Interrelationships among Project Success Factors and Criteria</th>
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<tr>
<td>Gordian Udechukwu Ojiako, Anwar Hamdan, and Hamdi Bashir, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, UAE</td>
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<th>ID 258</th>
<th>Structuring Project Interdependencies into a Simple Graphical Hierarchical Model</th>
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<tr>
<td>Helal Al Zaabi and Hamdi Bashir, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, UAE</td>
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<th>ID 357</th>
<th>The effect of Project Portfolio Selection on Business Success: An Empirical Study in the Indian Auto Component Industry</th>
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8:00 – 9:30, TUESDAY    Transportation and Traffic    Room 8

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<th>Risk Exposure and Factor Effect Study of Selected Car Accident Parameters on Accident Severity</th>
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<td>Khalid Alzoubi, Department of Industrial Engineering, Jordan University of Science and Technology, P.O. Box 3030, Irbid, Jordan</td>
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<th>ID 237</th>
<th>Logistic Strategy to Face Disruption in Freight Multimodal Transportation Network</th>
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<tr>
<td>Ery EKayanti Rosyida, Doctoral Student at Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember Surabaya, Indonesia</td>
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<th>Governance Reform of Moroccan Urban Public Transport Sector: Current State and Perspectives</th>
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<tr>
<td>Zehmed Karim and Jawab Fouad, High School of Technology (HST), Sidi Mohamed Ben Abdellah University (SMBAU), Fez, Morocco</td>
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9:30 am – 9:40 am, Tuesday: WELCOME ADDRESS

Dr. Nat Vorayos, Dean, Faculty of Engineering, Chiang Mai University, Thailand

9:40 am – 10:20 am, Tuesday: OPENING KEYNOTE I

Dr. Adeedeji Badiru

Dean, Graduate School of Engineering and Management, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA

Presentation Title – “Achieving and Sustaining GLOBAL Operational Excellence through Systems Engineering”

10:20 am – 11:00 am, Tuesday: OPENING KEYNOTE II

Dr. Devedas Shetty

Dean, School of Engineering and Applied Sciences and Professor of Mechanical Engineering
University of the District of Columbia, Washington, DC, USA

11:00 am - 11:30 am: Networking Break
### March 5, 2019 (Tuesday)

**Session: 11:30 am – 1:00 pm**

#### 11:30 – 1:00, TUESDAY  
**Global Engineering Education II**  
**Room 1**

**Session Chair:** Puteri Suhaiza Sulaiman, Universiti Putra Malaysia

**ID 262**  
**Reflections on Teaching, Research, and Service of a Faculty Member for Those Transitioning into a University Tenure Track Faculty Position**

Aezeden Mohamed, Faculty of Engineering and Applied Science, Memorial University, Canada; St. John’s and Mechanical Engineering Department, PNG University of Technology, Lae, MP 411, Papua New Guinea  
John Pumwa, Mechanical Engineering Department, PNG University of Technology, Lae, MP 411, Papua New Guinea

11:30 – 12:00 (Tuesday)

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<tr>
<th>Mohamed Ismail, Ph.D.</th>
<th>Hamid R. Parsaei, Ph.D., P.E.</th>
<th>Boback Parsaei</th>
</tr>
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<tbody>
<tr>
<td>Senior IT Consultant</td>
<td>Professor, Mechanical Engineering</td>
<td>Senior Consultant</td>
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<td>Texas A&amp;M University at Qatar</td>
<td>Texas A&amp;M University at Qatar</td>
<td>Integrated Technology Systems, Inc.</td>
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<td>Education City, Doha, Qatar</td>
<td>Education City, Doha, Qatar</td>
<td>Houston, Texas</td>
</tr>
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**ID 301**  
**Applications of Virtual Reality (VR) as Teaching Tool to Enrich Students Learning**

Mohamed Ismail, Ph.D., Senior IT Consultant, Texas A&M University at Qatar, Education City, Doha, Qatar  
Hamid R. Parsaei, Ph.D., P.E., Professor, Mechanical Engineering, Texas A&M University at Qatar, Education City, Doha, Qatar  
Boback Parsaei, Senior Consultant, Integrated Technology Systems, Inc., Houston, Texas

12:00 – 12:30 (Tuesday)

<table>
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<tr>
<th>Puteri Suhaiza Sulaiman</th>
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<tbody>
<tr>
<td>Senior Lecturer, Universiti Putra Malaysia</td>
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**ID 398**  
**Engineering Education through Students Engagement in Virtual Learning Space**

Puteri Suhaiza Sulaiman, Department of Multimedia, Faculty of Computer Science and Information Technology, UPM Serdang, Malaysia

12:30 – 1:00 (Tuesday)

**ID 145**  
**Social Determinants of Health: Global Comparison**

Sung-Ho Kim, Adjunct Professor of Health Administration, Yonsei University, South Korea  
Ik-Whan Kwon, Professor Emeritus of Operation Management, Director Emeritus of Center for Supply Chain Management Studies, Saint Louis University, USA

11:30 – 1:00, TUESDAY  
**Panel Session - Green Systems and Business Sustainability**  
**Room 2**

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

**ID 425**  
**Business Analytics Maturity Models: A Systematic Review of Literature**

Kaveeisha Anjaraththa and Suren Peter, Department of Industrial Management, University of Kelaniya, Sri Lanka

**ID 442**  
**A Strategic Relationship Building through Procurement 4.0: An Analysis from the Apparel Industry**

P. M. D. Rasanjani, W. W. N. Sachini, G. A. S. Sandamali and W. M. S. K. Weerabahu, Department of Industrial Management, Faculty of Science, University of Kelaniya, Srilanka

**ID 488**  
**The Design of Hybrid Flowshop Scheduling System With Nawaz Enscore Ham (Neh) and Campbell Dudek Smith (CDS) Algorithm to Minimize Makespan in Pt. Piasindo Elok**

Liesly Liesly, Lina Gozali, and Liyana, Department of Industrial Engineering, Tarumanagara University, Jakarta, Indonesia

**ID 634**  
**Occupational Health and Issue in the Low Back Pain among Filipino – Aged People through Ordinal Logistic Regression**

Angelo M. Alindogan, Felix John F. Amin, Nicole P. Clave, Queenie Colleen Guadalupe, Lynnette P. Salas, Ritz Jerard A. Tan, Ariane A. Pallsic and Yoshiki B. Kurata, Department of Industrial Engineering, Technological Institute of the Philippines, Quezon City, Philippines

**ID 823**  
**Technical Feasibility Battery Lithium to Support Unmanned Aerial Vehicle (UAV): A Technical Review**

Nida An Khofiyah, Department of Industrial Engineering, Universitas Sebelas Maret, Surakarta, Indonesia  
Wahyudi Subopo, Research Group of Industrial Engineering and Techno-Economics, Universitas Sebelas Maret, Surakarta, Indonesia  
Bayu Dwi Aprti Nugroho, Department of Agricultural and Biosystems Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia

**Session Chair:** Judging Committee Chair

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Bayu Dwi Aprti Nugroho, Department of Agricultural and Biosystems Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia

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Ninth Annual International Conference
ID 401 Developing a Mobile Application for Safety Engineers for Detailed Hazard Analysis
Jenny Díaz Ramírez, Department of Engineering, Universidad de Monterrey, Monterrey, N.L. 66238, Mexico

ID 341 Design issues in Maheshwars handicrafts (MP, India)
Pratik Mukesh, Master of Design, Design Discipline, PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur, India

ID 232 Time Driven Activity Based Costing in Outpatient Logistics
Kakrono Din and Duangkorn Kitchanchai, Department of Industrial Engineering, Mahidol University, Nakhon Pathom, Thailand

ID 303 Sustainable Biodegradable Packaging Material: A Solution for Decreasing Available Capacity of Landfills in the Philippines
Juan Miguel N. Dinglasan, Master of Sci. in Industrial Engineering and Management, Polytechnic University of the Philippines, Manila, Philippines

ID 319 Design And Implementation of Automation for Plant Nursery Process Time Reduction
Dian Yulianto, Salaya, Nakhon Pathom, Thailand

ID 343 Information Layout Designing of ‘Barco Display Screen’ Used in State Load Despatch Centre at MPPTCL
Pratibha Sahu, Master of Design, Design Discipline, PDPM Indian Institute of Information Technology Design & Manufacturing, Jabalpur, M.P., India

ID 491 Sustainable Construction through the Application of Lean Principles
Mary Yrene B. Paguio, ChE, OD, MS Industrial Engineering & Management Student, PUP, Philippines

ID 640 Design Intervention in Maheshwar Handloom, MP, India
Pratik Mukesh, Master of Design, Design Discipline, PDPM Indian Institute of Information Technology, Jabalpur, M.P., India

ID 450 A Managerial Challenge: Selecting an Appropriate Model for Implementing the Corrosion Management System, Case Study: National Iranian Gas Company
Ali Massaeli, Corrosion Management System Project Manager, Technical Inspection and Control Dept., National Iranian Gas Company, Tehran, IRAN

ID 451 Reza Mesgarian, Head of Process Engineering, Coordination and Production Monitoring Department, National Iranian Gas Company, Tehran, IRAN

ID 525 Controlling Schedule of Fiber to the Home (FTTH) Project Using Critical Path and Crashing Method
Catur Fajri Augyhana, Ika Arum Puspita and Wawan Tripiawan, Industrial Engineering, Industrial and System Engineering Faculty, Telkom University, Bandung, Indonesia

ID 526 Forecasting at Completion: Introduction of New Method and Comparing it with the Method of Earned Schedule
Ali Maaleki, MSc Social & Economical Engineering, Shah-e-rey, Tehran
Kaveh Mohammad Cyrus, Amirkabir University, Tehran, Iran

ID 571 Conflict Avoidance in Construction Stage through Proper Practice in Pre Contract Stage
Kanishka Gajaman, Vijeetha Disarathna, Pavithra Ganeshu and Fathima Nazher, Dept. of Building Economics, University of Moratuwa, Sri Lanka

ID 572 Excellent Performance Realization Methodologies (EPRMs): Elements and Framework
Alaa M. Ubaid and Fikri T. Dweiri, College of Engineering, University of Sharjah, University City, Sharjah, UAE

ID 137 A Knowledge Management Approach to Compare and Develop the ASEAN University Credit Transfer System in Thailand
Chayamarnie Bhiriyawanit, Faculty of Law, Chiang Mai University, Muang, Chiang Mai, Thailand

ID 628 Forecasting at Completion: Introduction of New Method and Comparing it with the Method of Earned Schedule
Ali Maaleki, MSc Social & Economical Engineering, Shah-e-rey, Tehran
Kaveh Mohammad Cyrus, Amirkabir University, Tehran, Iran
Davoud Gholamiangonabadi, Department of Industrial Engineering and Management Systems, Amirkabir University of Technology, Iran
ID 012  Operations Improvement in a Manufacturing Business of Make-To-Order Special Vehicles  
Inês Azevedo, Faculty of Engineering, University of Porto, Porto, Portugal  
Vera L. Migueis and Americo Azevedo, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, Porto, Portugal  
INESC TEC, Rua Dr. Roberto Frias, Campus da FEUP, Porto, Portugal  

ID 281  Developing a Roadmap to Become a World Class Manufacturing Company: A Case of Process Industry in India  
Anup P. Chaple, Manager – Industrial Engineering, UPL Ltd., India  
Sanjay Dharajiya, Lead- World Class Manufacturing, UPL Limited, India  

ID 290  Case Study on Maintenance Management Framework of a LPG Cylinder Manufacturing Industry  
A. Rashid, Department of Mechanical and Chemical Engineering, Islamic University of Technology, Gazipur, Dhaka, Bangladesh  
Md. Shamsuzzoha Sarker, Department of Mechanical and Chemical Engineering, Islamic University of Technology, Gazipur, Dhaka, Bangladesh  

ID 334  The Dynamics of Community and Parents Participation: Huyula Culture Approach In Educational Financing In High School, Vocational School And Madrasah Aliyah (Islamic High School) In Gorontalo Province, Indonesia  
Awallidayanto, Educational Management Program, School of Educational Science, Universitas Negeri Gorontalo, Indonesia  
Popi Puadah, School of Postgraduate Program, Islamic Education, Universitas Islam Jakarta, Indonesia  
Hendri, School of Engineering, Universitas Mercu Buana, Indonesia  

ID 356  Business English as a Global Needs for Entrepreneur Students of Narotama University  
Elok Damayanti and Agus Sukoco, Narotama University, Surabaya, Indonesia  

ID 813  Factors Affecting Efficiency of Police Stations in Metropolitan Police Division 3  
Pompimol Chaiwuttisak, Statistics Department, King Mongkut’s Institute of Technology Ladkrabang, Bangkok, Thailand  

ID 657  Expansion Tale of Al Fanar Restaurant  
Fauzia Jabeen, Abu Dhabi University, United Arab Emirates  

ID 815  Developing Students Graduate Attributes in Service Learning Project through Online Platform  
Azizah Yusof, Noor Azean Atan and Jamaluddin Harun, Universiti Teknologi Malaysia  
Mehran Doulatabadi, Graduate School of Business Administration, Meiji University, Tokyo, Japan  

11:30 – 1:00, TUESDAY  
Operations Management  
Room 8  

ID 153  Green Manufacturing Adoption Framework for Small and Medium Enterprises in Indonesia  
Ira Setyaningsih, Industrial Engineering Department, UIN Sunan Kalijaga Yogyakarta and Management Department, Universitas Gadjah Mada, Yogyakarta, Indonesia  
Wakhid Slamet Ciptono, Nurul Indarti, and Nofie Iman Vidya Kemal, Management Department, Universitas Gadjah Mada, Yogyakarta, Indonesia  

ID 179  Quality Signaling through Crowdfunding Pricing  
Ehsan Bolandifar, City University of Hong Kong  

ID 200  Performance-Based Contracts for Energy Efficiency Projects  
Sam Afkali, HEC Paris – Operations Management and Information Technology, France  
Roman Kapuscinski and Liang Ding, University of Michigan, Stephen M. Ross School of Business, USA  

ID 255  Designing Supervisory Policies that Avoid Livelocks in Manufacturing- and Service-Systems Modeled using General Petri Nets: A Tutorial using an Illustrative Example  
R. Khalegi, A. Raman and R.S. Sreenivas, Department of Industrial and Enterprise Systems Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, USA  

ID 279  Coalescing the Lean and Circular Economy  
Simon Peter Nadeem, Jose Arturo Garza-Reyes and Anthony I Anosike, Centre for Supply Chain Improvement, University of Derby, Derby, U.K.  
Vikas Kumar, Bristol Business School, University of the West of England, Bristol, U.K.  

ID 109  Cost Oriented Failure Consequence Analysis of Machine Components- A Case Study  
Pratik Nandanwar and Pravin P. Tambe, Dept. of Industrial Engineering, Shri Ramdeobaba College of Engineering & Management, Nagpur, India  

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

1:30 – 2:00 pm, LUNCH KEYNOTE  
Prof. George G.Q. Huang  
Chair Professor and Head of Department, Department of Industrial and Manufacturing Systems Engineering  
The University of Hong Kong  

Dr. Zhi Li (Piers)  
Associate Professor in School of Electromechanical Engineering  
Guangdong University of Technology (China)  
Deputy Director of National Local Joint Engineering Lab for Manufacturing Internet-of-Things Technology
Session – Tuesday (March 5): 2:30 – 4:00 pm

Global Engineering Education III

Room 1

2:30 – 3:00 (Tuesday)

Abdelaziz Berardo, Ph.D.
Department Chair and Associate Professor, Industrial Engineering, EMI School of Engineering
Mohamed V University in Rabat, Morocco

ID 439 A Critical Review about Performance Management in Education Systems: Case of Morocco
Hind Benhabib and Abdelaziz Berardo, Equipe AMIPS, Ecole Mohammadia d’Ingénieurs, Mohammed V University of Rabat, Morocco

3:00 – 3:30 (Tuesday)

Dr. Trynos Gumbo
Associate Professor and Head, Department of Town and Regional Planning
Faculty of Engineering and the Built Environment, University of Johannesburg (UJ), South Africa

ID 448 Investigating Curriculum Transformation Pathways in Technological Planning Schools: Learning from Conventional Planning Programmes and Beyond
Trynos Gumbo, University of Johannesburg, Department of Town and Regional planning, Johannesburg, South Africa
Brightnies Risimati, University of Johannesburg, Department of Quality and Operations Management, Auckland Park, Johannesburg, South Africa
Emaculate Ingwani, University of Venda, Department of Urban and Regional Planning, Thohoyandou, 0950, Thohoyandou, South Africa

3:30 – 4:00 (Tuesday)

Dr. Fauzia Jabeen
Associate Professor of Management, College of Business
Abu Dhabi University, UAE

ID 656 Perceptions and Career Choices Linked to the UAE Youths Entrepreneurial Intention
Fauzia Jabeen, Abu Dhabi University, United Arab Emirates

Panel Session on ISO and Industry Certification

Room 2

2:30 – 4:00, TUESDAY

Panel Chair: Dr. Edly Ferdin Ramly, EFR Certification, Malaysia

Dr. Edly Ferdin Ramly
Certification Director, EFR Certification, Johor Bahru, Malaysia

PANEL SPEAKERS

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<td>ISO9001 vs Business Excellence Framework</td>
<td>Challenge in certification process for Food Industries</td>
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<td>Mr. Hood Atan</td>
<td>Assoc. Prof. Ts. Dr. Musli Muhammad</td>
<td>Mr. Soffian Osman</td>
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<tr>
<td>Exergy Management Consultant</td>
<td>Department of Manufacturing and Industrial Engineering</td>
<td>Safety Academy Malaysia</td>
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<td>IATF Auditor for Afnor Certification, France</td>
<td>University Tun Hussein Oman, Malaysia</td>
<td>Sr. Operation Manager</td>
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Human Factors and Ergonomics

Room 3

2:30 – 4:00, TUESDAY

Session Chair: M. Manzoor Hussain, JNTUH College of Engineering, Hyderabad, India

ID 346 Impacts of Gender on Environmental and Cultural Influences in the Adoption of E-Commerce in Saudi Arabia
Khaled Alyami and Eui H. Park, Department of Industrial & Systems Engineering, North Carolina A&T State University, Greensboro, NC, U.S.A.

ID 132 A Study of the Design for Trolley School Bag of Elementary Children in Grades 1-3 Using the NIOSH Lifting Equation
Christian T. Chua, Glyda A. Marquez and Tyrine B. Mendez, Industrial Engineering Dept., Technological Institute of the Philippines, Quiapo Metro Manila, Philippines
Janina Elyse A. Reyes, Industrial Engineering Department, Technological Institute of the Philippines, Quiapo Metro Manila, Philippines

ID 226 Musculoskeletal Risk Assessment among the Male Workers Engaged in Craft Sectors of Jaipur, India
Ashish Kumar Singh, Makkhan Lal Meena and Himanshu Chaudhary, Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur, Rajasthan, India

ID 316 Cognitive Ergonomics and Electrophysiological Measures of Human Attention and Performance
Bradley Chase, Industrial & Systems Engineering, Shiley-Marcos School of Engineering, University of San Diego, San Diego, CA 92110, USA

ID 326 Ergonomic Design of an Assistive Propulsion System for Manual Wheelchairs
Madylaine G. Delfin and Danna May G. Mendez, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 547 Development of Food Safety Plan for Food Parks in the Philippines
Madonna F. Andarada, Rolph Fahad Christopher C. Bigtas and Manuel U. Ribo, Jr., School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 753 Occupational Health and Safety Issues among Workers in Stone Industries in North Karnataka
Qutubuddin S.M., Industrial & Production Engineering Department, North Karnataka Institute of Technology, Bellary, Karnataka, India
### IEOM Bangkok Conference

**PARALLEL SESSIONS**

March 5-7, 2019

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<th>2:30 – 4:00, TUESDAY</th>
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**ID 267** Selection and Scheduling of Interdependent Projects Using a Modified Genetic Algorithm  
Manish Kumar, M L Mittal, Gunjan Soni and Dheeraj Joshi, Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur, India

**ID 291** Solving Multi-Objective Assignment Problem with Decision Maker’s Preferences by Using Genetic Algorithm  
Md. Mahbubur Rahman, Dept. 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 380** Price-Quantity-Setting Mixed Duopoly Models: Market Opening  
Fernanda A. Ferreira and Flávio Ferreira, Polytechnic Institute of Porto, School of Hospitality and Tourism, Applied Management Research Unit (UNIAG), Portugal

**ID 397** The Capacitated Team Orientering Problem  
Aldy Gunawan and Hoong Chuin Lau, School of Information Systems, Singapore Management University, Singapore  
Kien Ming Ng and Gordy Adiprasetyo, Department of Industrial Systems Engineering & Management, National University of Singapore, Singapore  
Vincent F. Yu, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei 106, Taiwan

**ID 827** Green Marketing Mix Role Toward Sustainability Performance of Petrochemical Industry in Indonesia  
Yuary Farradia and Abdul Taib Bin Bon, Faculty of Technology and Management, Universiti Tun Hussein Onn, Batu Pahat, Johor, Malaysia

**ID 544** Performance Evaluation of Sustainable Innovation Practices in Food Supply Chain Using Best-Worst Method  
Jayot Darbani, Rashi Sharma and P.C. Jha, Department of Operational Research, University of Delhi, India  
Venkata Seshachala Sarma Yadavalli, University of Pretoria, South Africa

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<th>Lean Six Sigma</th>
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**ID 029** The Application of Lean Manufacturing to Reduce Setup Time of a Printing Process  
Kasarin Chivatbaranukul, Aeronautic Engineering, Vincent Mary School of Engineering, Assumption University, Thailand

**ID 113** Decrease Scrap of Railroader Axle on Carajás Railroad  
Francisco das Chagas Barbosa Nascimento, Reliability of Wagon Maintenance Management, Carajás Railroad to VALE S.A., Av. dos Portugueses, S/N Anjo da Guarda, CEP 65085 580 São Luís, MA – Brasil  

**ID 202** Operational Excellence: Concept Review and Meaning Restructuration  
Jacobo Tijerina Aguilera & Nancy Lucero Tapia Ruíz, Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

**ID 249** Implementation of Overall Equipment Effectiveness (OEE) in Garment Manufacturing Industry  
Ateeq ur Rehman, Muhammad Babar Ramzan, Abher Rasheed and Muhammad Salman Naeem, Department of Garment Manufacturing, National Textile University, Faisalabad, Pakistan

**ID 376** Identifying Drivers of Lean Six Sigma Implementation in the Process Industries: A Case Study  
Ferdous Sarwar, Farzana Islam, Md Sadman Sakib and Sampa Halder, Dept. of Ind. & Prod. Eng., Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

**ID 378** A Case Study of SS Implementation in Inspection Process  
Karthik Subburaman, Dept. of Mechanical Engineering, Vellore Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, Tamil Nadu, India

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<td>Session Chair: Lina Gozali, Tarumanagara University, Jakarta, Indonesia</td>
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**ID 473** Analysis of Designing Job Shop Scheduling In Pt. Harmony of Four Selaras with Tabu Search Algorithm Method to Minimize Production Makespan  
Lina Gozali, Liliana Jap, Melsiya Anggihani Halim, Industrial Engineering Department, Faculty of Engineering, Universitas Tarumanagara, Jakarta, Indonesia

**ID 526** A Principal Criteria Searching Approach Based Leanness Assessment Method Considering Industrial Diversity  
Geng Cui, Fei Xie and Cunrong Li, Department of Industrial Engineering, School of Mechanical and Electronics Engineering, Wuhan University of Technology, China

**ID 602** Factors Influencing the Success and Failure of Small and Medium-Sized Enterprises in Tembisa Township, South Africa  
E I Edoun, Professor C Mbohwa and Thobile Yvonne Bhila, Faculty of Engineering and the Built Environment, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa

**ID 639** Knowledge Management by Farmers in the Win-Win Relationship Project in Land Reform Areas, Northern Thailand  
Wallarat Intaruccomporn, Department of Agricultural Economy and Development, Faculty of Agriculture, Chiang Mai University, Thailand

**ID 655** Newsvendor Models and Biases under Ambiguity  
Peeyush Mehta, Indian Institute of Management Calcutta, Operations Management Group, Kolkata, India  
R K Amit, Indian Institute of Technology Madras, Dept. of Management Studies, Chennai, India

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**ID 378** A Case Study of SS Implementation in Inspection Process  
Karthik Subburaman, Dept. of Mechanical Engineering, Vellore Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, Tamil Nadu, India

**ID 437** Continuous Improvement to Create Value: Warehouse Management in a Telecommunications Company  
José Vasconcelos Ferreira and Ana Luisa Ramos, GOV/CCP/Dept. of Economics, Management, Industrial Engineering and Tourism, University of Aveiro, Portugal  
Adriana Ferreira Esteves, Department of Economics, Management, Industrial Engineering and Tourism, University of Aveiro, Aveiro, Portugal
ID 513  Successful Implementation of Separate Layer Steam Injection to Enhance Oil Production from Comingle Layers- FNE-28 Case Study
Husham A. Ali Elbaloula Petro-Energy E&P, Dr. Tagwa A. Musa –Sudan University of Science & Technology, Luo Shengyong – GWDC

ID 522  ASEAN 2025 and KM Approach to Improve Business Lawyer Competency: A Case Study of Chiang Mai University
Chayamankee Bhiriyawani, Worawit Janchai, Pilipong Yodmongkol and Anurak Panyanuwat, College of Arts, Media, and Technology, Chiang Mai University, Thailand

ID 527  Organizational Readiness to Change in Research Institute Case Studies
Mia Rahma Romadona, Research Center for Development of Science and Technology, Indonesian Institute of Sciences, Jakarta, Indonesia

ID 761  Entrepreneurial Competencies and Business Performance of Pontian Small Medium Enterprises
Avlyin Jay Sumayong, Ng Kim Soon, Muhammad Rauhan Bin Azhar and Agnes Sumayung, Department of Technology Management, Faculty of Technology Management and Business University Tun Hussein Onn Malaysia

ID 814  Achieving Performance Excellence through "TRADE" Best Practice Benchmarking Methodology: The Dubai Government Experience
Mehran Doulatabadi, Meiji University, Tokyo, Japan.
Robin Maa, Centre for Organisational Excellence Research (COER), Massey University, Palmerston North, New Zealand

2:30 – 4:00, TUESDAY  Business Management  Room 8
Session Chair: Leonardus W Wasono Mihardjo, Bina Nusantara University, West Jakarta, Indonesia

ID 027  Ethical Leadership and Organizational Culture of Student Organization at Indonesian Private University
Mahendra Fakhri, Mahir Pradana and Dita Puru Utami, Telkom University, Jalan Terusan Buah Batu, Bandung, 40257, Indonesia

ID 176  Analysis Forecast Production Model: A Mexican Family Firm Proposal
Gonzalo Maldonado-Guzmán, Centro de Ciencias Económicas y Administrativas, Universidad Autónoma de Aguascalientes, Aguascalientes, Ags., México C.P. 20131
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, DE22 1GB, UK
Lizeth Itzigury Solano-Romo, Centro de Ciencias Básicas, Universidad Autónoma de Aguascalientes, Aguascalientes, Ags., C.P., México

ID 273  A Strategy of Local Content Enhancement in Petroleum and Natural Gas Industry
Rahmat Nurcahyo, Enina Loide Hutaisolt and Erfinda Muslim, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia
Alan Dwi Wibowo, Agroindustrial Technology Department, Faculty of Agriculture, Universitas Lambung Mangkurat, Banjarmasin, Kalimantan Selatan, Indonesia

ID 277  Pilot Static Modeling of Social Business: Case of Kampong Jelekong in Bandung
Gadang Ramantoko, Palti M Sitorus, Sri Widyatesti, Faculty of Economics and Business (FEB), Telkom University, Bandung, 40257, Indonesia

ID 318  The Role of Digital Leadership on Development of Dynamic Capability with Mediating Variable on Market Orientation and Innovation Capabilities for Indonesia Telecommunication Firms in Facing Disruptive Era
Leonardus W Wasono Mihardjo, Doctor of Research in Management, Bina Nusantara University, West Jakarta, Indonesia
Riza A.N. Rukmana, Senior Member, Industrial Engineering, Telkom University, Bandung, Indonesia

ID 331  The Impact of Corporate Social Responsibility on Consumer Purchase Behaviour in High-Street UK Retailers
Christabel Annama Paramita Parung, S.T., M.Sc., Faculty of Creative Industry, University of Surabaya, Surabaya, Indonesia

ID 419  Utilitarian and Hedonic Motivations: Its Influences on Search and Purchase Intention in Instagram
Randy Angga Kusuma, Santriinanrunggrum Soebandhi, Hamzah Denny Subaygo and Agus Sukoco, Faculty Economy and Business, Narotama Univ., Surabaya, Indonesia
Dani Hermanto, Faculty of engineering and technology, University of Derby, UK
Abdul Taib Bin Bon, Fakultti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

2:30 – 4:00, TUESDAY  Engineering Management  Room 9
Session Chair: Pratibha Sahu, IIIT Design & Manufacturing, Jabalpur, M. P., India

ID 688  The Influence of Organisational Culture on Students' Satisfaction in Saudi Arabia
Saad Aziz Al-Otaibi, Azman Hashim International Business School, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia
Sha'ri Mohd Yusof, Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia
Wan Khairuzaman Wan Ismail, Senior Research Associate, Faculty of Business, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

ID 818  Life Cycle Assessment in Ceramic Floor Tile Industry in Sri Lanka
S. Kamalakannan, R.L. Peiris and A.K. Kulatunesti, Department of Manufacturing & Industrial Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka

ID 819  Understanding Outsourcing from Client's Perspective: Revisiting the Existing Literature
Damitha Rajini, Faculty of Graduate Studies, University of Colombo, Sri Lanka
K.A.S.P. Kaluarachchi, Department of Management and Organisational Behaviour, University of Colombo, Sri Lanka

ID 834  Willful Default or Socially Responsible – A Study of Indian Banks and Companies
M. Satish Kumar and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 832  Social Disclosures using Social Media in India
Abiram Guruswamy and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

4:00 – 4:30: Networking Break

Session – Tuesday (March 5): 4:30 – 6:00 pm

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

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

- Dr. Hamid Parsaei, PE
  Professor of Industrial and Systems Engineering
  Texas A&M University (College Station) and
  Professor of Mechanical Engineering
  Texas A&M University – Qatar

- Dr. Adeleke Badiru
  Dean, Graduate School of Engineering and Management
  Air Force Institute of Technology
  Wright-Patterson AFB, Ohio, USA

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4:30 – 6:00, TUESDAY

Industry Solutions IV
Room 2

Session Chair: Dr. Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia

4:30 – 5:00 (Tuesday)

Patrick Dallasega
Assistant Professor of Supply Chain Management and Industrial Plants Design
Faculty of Science and Technology, Free University of Bolzano, Italy

Dr. Dominik T. Matt
Full Professor for Manufacturing Technology and Systems
Head of the Industrial Engineering and Automation (IEA) research group
Free University of Bolzano, Italy

ID 296 Suitability of Industry 4.0 Concepts for Small and Medium Sized Enterprises: Comparison between an Expert Survey and a User Survey
Erwin Rauch, Thomas Stecher, Marco Unterhofer, Patrick Dallasega and Dominik T. Matt, Industrial Automation and Engineering (IEA), Faculty of Science and Technology, Free University of Bolzano, Piazza Università 5, 39100 Bolzano, Italy

5:00 – 5:30 (Tuesday)

Chawalit Jeenanunta, Ph.D.
Associate Professor and Deputy Director for Building, Ground and Properties and Head of Logistics and Supply Chain Systems Engineering Research Unit and Centre for Demonstration and Technology Transfer of Industry 4.0 (LogEn4.0)
Sirindhorn International Institute of Technology
Thammasat University, Bangkadi Muang, Pathumthani, Thailand

5:30 – 6:00 (Tuesday)

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

4:30 – 6:00, TUESDAY

Competitions
Room 3

Session Chair: Ch. Kesava Reddy, Mechanical Engineering Department, MGIT, Hyderabad, INDIA

SIMULATION COMPETITION

ID 400 Improving the Fabrication and Welding Workshop at Kuwait Oil Company for Better Worker Performance by Using Digital Human Modeling and Simulation
Fatemah AlKhozam, Hebah AlEnezi, Muneerah AlMettaqem, Rahaf AlAjmi, Shareefah Haji, Kareem Abbady, and Suat Kasap, Industrial Engineering Department, College of Engineering and Technology, American University of the Middle East – AUM, Eqaila, Kuwait

ID 671 Evaluation of Redesign Layout Using Discrete Event Simulation (DES)
Zakka Ugih Rizqi and Rachmat Aulia, Islamic University of Indonesia, Siemen, Indonesia

SUPPLY CHAIN COMPETITION

ID 135 Multiperiod Reliable Uncapacitated Facility Location Problem
Megha Sharma and Sumanta Basu, Operations Management Group, Indian Institute of Management Calcutta, Kolkata, India

ID 377 Developing Green Supply Chains for New Kuwait: A Strategic Approach
Ghalia Al-Mutairi, Mariam Al-Ajran, Hawwa Al-Bather, Fatma Mhaisen, Rawan Al-Humaidi, and Walid Smew, Industrial Engineering Department, American University of the Middle East (AUM), Eqaila, Kuwait

DOCTORAL DISSERTATION COMPETITION

ID 617 The Impact of Customized Service and Guest Satisfaction in the Tourism and Hospitality Industry
Thobile Yvonne Bhila, Faculty of Eng. and the Built Environment, Dept. of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa

ID 672 Lean Manufacturing and Ergonomics in the Metallurgical Industry: An Integrated Approach for Performance Improvement
Ana Luisa Ramos, University of Aveiro (DEGEIT/GOVCOPP), Aveiro, Portugal

4:30 – 6:00, TUESDAY

Optimization
Room 4

Session Chair: Thobile Yvonne Bhila, University of Johannesburg, Auckland Park, South Africa

ID 251 Simulation-based Optimization Model to Enhance Petroleum Distribution Network in Sri Lanka
W.W.N. Sachini, W.M.S.K. Weerabahu, R. Wickramarchchi, Department of Industrial Management, University of Kelaniya, Sri Lanka

ID 280 Multi-period Temporary Depot Location Problem in Flood Natural Disaster Response
Wapee Manopiniwes, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Chiang Mai, Thailand

ID 373 Optimization of Voltage and Frequency by using ‘Ant Colony Optimization’ at Hydro-Electric Power Plant Output Having Permanent Magnate Synchronous Generator
Ompal Singh and Arunima Verma, IET Lucknow, Uttar Pradesh, India

ID 530 A New Metaheuristics for Solving Traveling Salesman Problem: Partial Comparison Optimization
Antonio Adhi, Industrial Engineering Department, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia, Industrial Engineering Department, Universitas Stikubank, Semarang, Indonesia

Budi Santosa and Nurhadi Siswanto, Industrial Engineering Department, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

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4:30 – 6:00, TUESDAY   Quality Control   Room 5

Session Chair: Pankaj Tiwari, Department of Chemical Engineering, Indian Institute of Technology Guwahati, India

ID 375   Using Statistical Process Control Measures to Minimize Defects in the Plastic Department of Marilao Alerco Industrial Corporation
Eugene R. Tamba, Rachael G. Tadina and Val Ryan Aguilar, Industrial Engineering, Technological Institute of the Philippines – Manila
Janina Elyse Reyes, Industrial Engineering Department, Technological Institute of the Philippines, Quiapo Metro Manila, Philippines

Hermien Tridayanti, Bayu Arialang Putra, Sengguruh Nilowardono, Economic and Business Faculty, Narotama University, Surabaya, East Java, Indonesia

ID 294   Verification and Validation Methods across the Product’s Lifecycle: A Systematic Analysis and Review
Aneias Mabadressa and Athanasios Rentizelas, Dept. of Design, Manufacturing and Eng. Management, Strathclyde University, Glasgow, Scotland

ID 234   Application of Value Stream Mapping to Improve Financial Performance of a Production Floor: A Case Study
Subrata Talapatra and Jananatul Shefa, Department of Industrial Engineering and Management, Khaln University of Engineering & Technology, Khulna, Bangladesh

ID 396   Application of Statistical Process Control on Sunless Industrial Corporation
Jeryn Borja, Veniceredge Eugenio, Ferdinand Tomas and Ariana Villarico, Dept. of Industrial Engineering, Technological Institute of the Philippines, Manila, Philippines
Janina Elyse Reyes, Industrial Engineering Department, Technological Institute of the Philippines, Quiapo Metro Manila, Philippines

ID 363   Modified Multivariate Control Chart Using Spatial Signs and Ranks for Monitoring Process Mean: A Case of t-Distribution
Thidathip Haanchumpol, Prapaisri Sudasana-na-Ayudthya and Chansim Singhtaun, Department of Industrial Engineering, Kasetsart University, Bangkok, Thailand

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

Session Chair: Anup P. Chaple, Manager – Industrial Engineering, UPL Ltd., India

ID 620   The Essence of Communication and Its Operationalisation on Managerial Effectiveness
Nguku Tiva, E. Edoun and Mbohwa, Department of Quality and Operations Management, University of Johannesburg, South Africa

ID 337   Development of Educational Process Capability Maturity Model
Nedaa Alshaheen, Total Quality Management Techniques Department, Middle Technical University, Baghdad, Iraq
Sura Alshaheen, Republic of Iraq Ministry of Education, Department of Total Quality Management and Organizational development, Baghdad, Iraq

ID 416   Do E-Satisfaction And E-Trust Affect Online Repurchase Intention?
Ade Woroko, Santirianingrum, Avi Sunani, Hermin Tridayanti, Sengguruh Nilowardono and Ronny Wardhana, Faculty Economy and Business, Narotama University, Surabaya, Indonesia
Agus Sukoco, Faculty of engineering and technology, University of Derby, UK
Dani Hermanto and Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

ID 540   Developing MSMEs’ Businesses Performance Using Balanced Scorecard Model Measurement Based on Information Technology
Achmad Zaka’i, Faculty of Informatic Engineering, Narotama University, Surabaya, Indonesia
Arasy Alimudin, Agus Sukoco and Elok Damayanti, Faculty Economy and Business, Narotama University, Surabaya, Indonesia
Abdul Talib Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 570   Integration of 360-degree Feedback Methods and AHP for Employee Performance Measurement
Much. Djunaidi, Virna S.D. Kumaraningrum, Indah Pratwi, and Hafidh Munawir, Dept. of Industrial Engineering, Universitas Muhammadiyah Surakarta, Indonesia

ID 601   Importance of Innovative Transformational Leadership on Employee Engagement in the Mining Industry
M. M. Manyuchi and A. Garg, Dept. of Management Sciences, School of Management Sciences, Tshwane University of Technology, South Africa

ID 641   Fleet management through Vehicle Routing Problem and Multi Depot Vehicle Scheduling Problem: A Literature Review
Ziyad Bahou, Equipe MOAD6, Mohammadia School of Engineers, Mohammed V University of Rabat, Morocco
Jamal Elhachmi, Laboratory of Electronics and Telecommunications, Mohammadia School of Engineers (EMI), Rabat, Morocco

ID 838   A Study on Awareness of Block Chain Technology among Human Resources Executives in India
Vinith Kumar Nair, Professor- Marketing & Associate Dean, TKM Institute of Management, Kerala, India
Maria Sabastin S., Department of Management, Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka, India

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**Parallel Sessions**

*ID 087* Banana Peel for the Decontamination of Mercury in Water
Geraldo Espinosa, Jacobo Tijerina, Natella Antowny and Imelda Loera, Universidad de Monterrey, San Pedro Garza García, Nuevo León, Mexico

*ID 101* Dehydration And Slicing to 150 Microns Process of Melon Seed
Geraldo Espinosa Garza and Jacobo Tijerina Aguilera, Extension, Consulting and Research Division, Universidad de Monterrey, Av. Ignacio Morones Prieto 4500 Pte., San Pedro Garza García, N.L., 66238, Mexico

*ID 802* Contemporary Modular Study Table for Small Minimalist Residence in Malaysia
Mohamad Al Selim, Safari Hasanuddin, Juliana Abdul Halip, Abdullah Al Rashid Ab Hamid and Abdul Talib Bon, Department of Furniture Design and Manufacturing, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

*ID 110* A Drivers’ Performance Assessment Model Based on Fuel Economy Measurements
Jenny Díaz Ramírez, Department of Engineering, Universidad de Monterrey, Monterrey, N.L. 64236, Mexico
José Ignacio Huertas, Energy and Climate Change Research Group, School of Engineering and Science, Tecnológico de Monterrey, N.L., México

*ID 156* Mercury, Cadmium and Lead Removal from Contaminated Water by Processed Lemon Peel
Geraldo Espinosa Garza, Alba Victoria Sordo Téllez, Cassandra Ibarra Barreda, Sergio García, Emilianio Garza Belden, Juan José de Isla and Michelle Aggelier Castellanos, Universidad de Monterrey, Nuevo León, Mexico

*ID 170* locating an Urban Distribution Center based on Road Safety
Maha BENNANNI, MGSI LPEDD, Fes, Morocco

**Session Chair:** Hiroyuki Goto, Hosei University Tokyo, Japan

**Room 8**

*ID 061* Time Estimation for Container Handling and Yard Arrangement
Etuko Nishimura, Graduate School of Maritime Sciences, Kobe University, 5-1-1 Fukae-minami, Higashinada, Kobe 658-0022, Japan

*ID 121* A Literature Review and Further Research Direction in Cross-docking
Dollaya Buakum, Graduate Program in Industrial Engineering, Department of Industrial Engineering, Chiang Mai University, Chiang Mai, Thailand
Warisa Wiistiphanich, Excellent Center in Logistics and Supply Chain Management, Department of Industrial Engineering, Chiang Mai University, Chiang Mai, Thailand

*ID 167* An Efficient Storage Allocation in Warehouse to Minimize Travel Distance of Pickers
Md. Safful Islam, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna-9203, Bangladesh
Md. Kutub Uddin, Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, Bangladesh

*ID 268* Random Location under Fixed Zone Storage Strategy - A Case Study of Automobile and Electronic Parts Manufacturing Factory
Pichkaya Khongkaew, Industrial Management, Faculty of Business Administration, Thai-Nichi Institute of Technology, Bangkok, Thailand

*ID 270* Impact of Business Process Reengineering of Reverse Logistics for Improving Supply Chain Performance: A Conceptual Framework from a Systematic Review of Literature
Thsiuti Kaluwarachi, Kalapini Sarathchandra, Ganguli Wijewardhana and Samantha Weerabahu, Department of Industrial Management, University of Kelaniya, Sri Lanka

*ID 285* Trends in Green Vehicle Routing in Reverse Logistics
E. Waidyathilaka, V.K. Tharaka and A.P.R. Wickramarachchi, Department of Industrial management, University of Kelaniya, Sri Lanka

*ID 518* Literature Review of Dynamic Vehicle Routing Problem and Future Perspectives
Kaadiri Yahia and Omar Drissi Kaitouni, Engineering, Management and Systems’ optimization Laboratory, Mohammadia School of Engineers, Avenue Ibn Sina B.P 765, Agdal – Rabat, Morocco

**Senior Capstone Design Poster Competition: 6:00 – 8:00 pm (Tuesday)**

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

*ID 784* Development of Framework for the Core Soft Skills and Competencies Required by Project Managers in Oil and Gas Industry
Students Name: Esra’ Abusharkh and Asila Al-Shamli
Supervisor(s): Dr. Nasr Al-Hinai (Supervisor) and Dr. Emad Summad (Co-Supervisor)
Sultan Qaboos University, Maskat, Oman

*ID 787* Expanding Central Craft Company
Dalal Al-Beshayer, Nour Al Enezi, Noor Khourshed, Rawan Al-Elaj, Sherifa Al-Kandari and Mustafa Sendil, Industrial Engineering Department, College of Engineering and Technology, American University of the Middle East – AUM, Egaila, Kuwait

**Poster Session**

6:00 – 8:00 pm (Tuesday)

**Posters**

*ID 015* Projector Nonlinear Gamma Effect Reduction for Fringe Projection
Javier Cruz Salgado, Technology Development Department, Universidad Politécnica del Bicentenario, Siloan Guanajuato, 36283, México

*ID 030* Combination of Tolerances of False Causes of Failure in Neuro psychiatrics Structures of the prediction for the Reliability of Refurbished Systems
Fereidoon Heidari Takabi, Maintenance and methods Department, South pars gas complex, Assalye, Iran

*ID 032* An Improved Malaysian Automotive Industry Resin Supply Chain Framework
Rosdan Bin Rosman and Sha’H Mohd. Yusof, Razak Faculty of Technology & Informatics, Universiti Teknologi Malaysia, Jalan Semarak, Malaysia

*ID 040* Device Design for SAE 1020 Steel Tool Storage Applied to Automotive Industry
Marcilio Antunes Leite Filho, Rosnene Batista Ribeiro, Adriano José Sorbile de Souza, José Wilson de Jesus Silva and Wellington de Oliveira, Post-Graduation Program in Design, Technology and Innovation, Lorena, UNIFATEA, Brazil

*ID 092* A Classification of Transport Mode on a Smartphone Based on a Neural Network
ID 093 A Study on a Routing Problem Focusing on Freight Transportation
Tatsuya Komiya, Advanced Course in Production Systems Engineering, Salesian Polytechnic Machida, Tokyo 194-0215, Japan
Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic Machida, Tokyo 194-0215, Japan
Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University Tokyo, Japan

ID 094 Assessment of Accessibility to a Facility Using a Geographic Information System: Case Study of a Food Desert Problem in a Suburban Area of Tokyo
Shun Odahara, Advanced Course in Production Systems Engineering, Salesian Polytechnic Machida, Tokyo 194-0215, Japan
Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic Machida, Tokyo 194-0215, Japan

ID 111 Location Model Minimizing Distances between EV Charging Stations
Yohei Kakimoto, Graduate School of Science and Engineering, Hosei University, Tokyo, Japan
Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University Tokyo, Japan
Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic Machida, Tokyo, Japan
Prompan Panote, Graduate School of Science and Engineering, Hosei University, Tokyo, Japan

ID 147 Throughput Rate Calculation by Cycle Time Modeling for Multi Aisles ASRS Using Timed Petri Nets
Yassine Bouzghene Stamboul, MELT laboratory, University of Tlemcen, Algeria
Samir Hamadi, Quartz Laboratory (EA 7393), ECAM-EPMI, Cergy-Pontoise, France

ID 150 A Workplace Assessment for Visually Impaired and Blind Massage Therapists of a Massage Therapy Franchise in Metro Manila, Philippines
Noriko Hayashi, Januel Ticsay, Krischael Santos and Janne Paula Villaflo, Department of Industrial Engineering, Technological Institute of the Philippines, Manila, Philippines

ID 177 The Impact of the Introduction of ISO 9001 Standards – Case of a South African Power Station
Sambul Charles Mukwakungu, Matimba Davis Mabasa, Tebogo Lucky Mame, Semanga Mabuza and Sihle Mankazana, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 233 Applying a Genetic Algorithm to a Signboard Layout Problem Based on a Flow Captured Location-Allocation Problem
Nozomi Yoshimura, Gaku Miyai and Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic Machida, Tokyo 194-0215, Japan

ID 264 Multi-Level Network Planning for Blood Supply for Critical Conditions
Sahra Mahdavi and Seyed Mehdi Sajjadifar, Department of Industrial Engineering, University of Science and Culture, Iran

ID 266 Customer Economics trust in Business using Instagram
Homa Atefyekta and Nasser Safae, K. N. Toosi University of Technology, Tehran, Iran

ID 271 Mathematical Model of Average waiting time for an Elevator Based on Stochastic Process
Yuki Satoh, Advanced Course in Production Systems Engineering, Salesian Polytechnic Machida, Tokyo 194-0215, Japan
Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic Machida, Tokyo 194-0215, Japan

ID 329 A review on the Awareness of Health Care Practitioners on Medical Waste: A Case South African Health Care
Sambul Charles Mukwakungu, Matimba Davis Mabasa, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 330 The Impact of Just in Time (JIT) in South African Company's Inventory Management - Case Studies
Sambul Charles Mukwakungu, Matimba Davis Mabasa, Sihle Mankazana, Xolani Mzileni and Sine Aurore Burakeye, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 350 Lean Techniques Application to Improve Product Replacement Process in a Manufacturing Organization: Case of a Brandable Company in Johannesburg, South Africa
Sambul Charles Mukwakungu, Matimba Davis Mabasa and Xihovo Baloyi, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 383 Circular Economy in Industry: Some Insights and Directions to ImplementCircularity
José Vasconcelos Ferreira and Ana Luisa Ramos, GOVCOPP/Department of Economics, Management, Industrial Engineering and Tourism University of Aveiro, Aveiro, Portugal
Marta Miranda Camoesas, Department of Economics, Management, Industrial Engineering and Tourism, University of Aveiro, Aveiro, Portugal

ID 446 Approaches to Catering to Variability in Demand Fulfillment in a First Mile Logistics Network
Sanchita Das, Amit Gahlawat and Sarvartha Kanchan,

ID 454 Multi-objective Optimization of Dynamic Electricity Generation-Mix with CO2 Reduction Target: A Case Study of South Africa
Zakaria Yahia and Pule Kholopane, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 455 Multi-objective Preemptive Optimization of Residential Load Scheduling Problem Under Price and CO2 Signals
Zakaria Yahia and Anup Pradhan, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 456 TAKA News Search Engine: A Proposed DEMO-based Performance Evaluation System
Tarek Fatyani, R&D Department, SMAGROUP LLC, Chiba, Japan
Zakaria Yahia, Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

ID 493 Value-at-Risk and Modified Value-at-Risk under Asset Liability by Using Time Series Approach
Sukono, Betty Subartini and Herlina Napitupulu, 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
Subby Su, Department of Marine Science, Universitas Padjadjaran, Indonesia
Abdul Taib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 494 Reinsurance Loss Model at Individual Risk for Short Term in Life Insurance
Sukono, Endang Soeryana Hasibullah and Alik Kartiwa, 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 Taib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 495 A New 3-D Chaotic System with Three Nonlinearities, its Adaptive Synchronization and Circuit Simulation
Aceng Sambas, Department of Mechanical Engineering, Universitas Muhammadiyah Tasikmalaya, Tasikmalaya, Indonesia
Sundarapandian Vaidyanathan, Research and Development Centre, Vel Tech University, Chennai, Tamil Nadu, India
Subiyanto, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Mustafa Matam, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Kuala Terengganu, Malaysia
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<tr>
<th>ID</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>496</td>
<td>A New 4-D Hyperchaotic System with a Two-Scroll Attractor, its Adaptive Control and Circuit Simulation</td>
<td>Sukono, F, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung Jawa Barat, Indonesia</td>
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<tr>
<td>497</td>
<td>Numerical Simulation of Finite Difference Time Domain (FDTD) for Solving the Boundary Value Problem (BVP) in Earth Layer Adam Sukma Putra, Idham Syah Alamin, Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Gajah Mada, Indonesia</td>
<td>Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia Wahluy Sriagiton, Department of Physics, Faculty of Mathematics and Natural Sciences, Bandung Institute of Technology, Indonesia Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia</td>
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<td>498</td>
<td>The Application of Floyd-Warshall Algorithm in Solving Shortest Path Problem for Fire Evacuation System at High Rise Building (Case Study at eL Royale Hotel Bandung)</td>
<td>Sukono, F, Department of Mathematics and Natural Sciences, Universitas Padjadjaran Bandung Jawa Barat, Indonesia</td>
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<td>499</td>
<td>Regional Lagging Analysis in Indonesia Using Binary Logistic Regression</td>
<td>Titi Purwanarti and Yuyun Hidayat, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia Sukono and Herlina Napitupulu, 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</td>
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<td>500</td>
<td>Profile of West Java Province Based on School Participation Rate Using Biplot’s Principal Component Analysis</td>
<td>Titi Purwanarti and Yuyun Hidayat, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia Sukono and Herlina Napitupulu, 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</td>
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<td>501</td>
<td>Identification of Countries that Have Similarities with Indonesia in the Context of Rice Crisis Using Multidimensional Scaling</td>
<td>Titi Purwanarti and Yuyun Hidayat, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia Sukono and Herlina Napitupulu, 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</td>
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<td>502</td>
<td>Grouping of Regencies and Cities in West Java Using the Biplot’s Principal Component Analysis</td>
<td>Yuyun Hidayat and Titi Purwanarti, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia Sukono and Herlina Napitupulu, 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</td>
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<td>503</td>
<td>Listing All Potential Maximal Cliques of a Graph</td>
<td>Mustafa Mamut, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Tembila Campus, 2200 Besut, Terengganu, Malaysia Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Johor, Malaysia</td>
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<td>504</td>
<td>Eigenvalues and the Max-Cut Problem</td>
<td>Mochamad Suyudi and Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia Mustafa Mamut, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Tembila Campus, 2200 Besut, Terengganu, Malaysia Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia</td>
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<td>505</td>
<td>Problems of Demand and Effects in Portfolio based Selection of Utility functions</td>
<td>Riau, Sukono and Eman Lesmana, 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</td>
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<td>506</td>
<td>Role of IOT and Big Data Science in Reusable Packaging Logistics Optimization</td>
<td>Bryan Jay Capistrano, Polytechnic University of the Philippines, Manila, NCR, Philippines</td>
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<td>507</td>
<td>Design an Optimal Doctor Schedulling System</td>
<td>Tafadzwa Chawasemwe, University of Witwatersrand, South Africa</td>
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<td>508</td>
<td>What are the Factors Affecting the Successful Implementation of Industrial Engineering Projects or the Application of Industrial Engineering Tools and Techniques in Mining in a South African Context?</td>
<td>Tafadzwa Chawasemwe, University of Witwatersrand, South Africa</td>
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<td>509</td>
<td>Surfactant and Polymer-Nanoparticle Interaction with Heavy Crude Oil</td>
<td>Rahul Saha, Ramgopal Uppaluri and Pankaj Tiwari, Department of Chemical Engineering, Indian Institute of Technology Guwahati, India</td>
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<tr>
<td>510</td>
<td>Development of an Automated Railway Level Crossing Gate Control System using PLC</td>
<td>Ruma Tasnim, Abu Salman Shaikat, Kamruzzaman Sarkar, Md. Ismail Mahmud, Mohammad Ali and Md. Tarikul Islam, Department of Mechatronics Engineering, World University of Bangladesh, Dhaka, Bangladesh</td>
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6:00 – 8:00 pm (Tuesday)
Faculty Postion Opportunities Networking

7:00 – 10:00 pm (Tuesday)
IEOM Student Chapter Activitites Presentaitons and Recognition
March 6, 2019 (Wednesday)

Session: 8:00 – 9:30 am

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

Session Chair: Dr. S. C. Naik, National Institute of Technology, Rourkela, Odisha, India

8:00 – 8:30 (Wednesday)

<table>
<thead>
<tr>
<th>Dr. Paul A. Ozor</th>
<th>Professor Charles Mbohwa</th>
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<tbody>
<tr>
<td>TWAS-NRF Research Fellow</td>
<td>Professor, Faculty of Engineering and the Built Environment</td>
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<tr>
<td>University of Johannesburg, South Africa</td>
<td>University of Johannesburg, South Africa</td>
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ID 603  Engineering Education and Self Dependence: A Nigerian Experience
Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, South Africa
Paul A. Ozor, Department of Quality and Operations Management, University of Johannesburg, South Africa
Department of Mechanical Engineering-Industrial Engineering and Management, University of Nigeria Nsukka, Nigeria

8:30 – 9:00 (Wednesday)

<table>
<thead>
<tr>
<th>Dr. A. K. MALIK</th>
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<tbody>
<tr>
<td>Associate Professor, Department of Mathematics</td>
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<tr>
<td>B. K. Birla Institute of Engineering &amp; Technology, Pilani (Rajasthan) INDIA</td>
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9:00 – 9:30 (Wednesday)

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<tr>
<th>Dr. Shiba Charan Naik</th>
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<tbody>
<tr>
<td>Professor, Former Head of Chemical Engineering and Dean, National Institute of Technology, Rourkela, Odisha, India</td>
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<tr>
<td>Past President, The Institution of Engineers and Past Vice-President, The Federation of Engineering Institutions in South &amp; Central Asia</td>
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</table>

8:00 – 9:30, WEDNESDAY  Industry Solutions V: Industry 4.0  Room 2

Session Chair: Hermanto Dwiatmoko, University of Mercu Buana, Jakarta, Indonesia

8:00 – 8:20 (Wednesday)

<table>
<thead>
<tr>
<th>Dr. Ruwan Wickramarachchi</th>
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<tr>
<td>Senior Lecturer and Head, Department of Industrial Management</td>
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<td>University of Kelaniya, Sri Lanka</td>
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ID 274  A Study of the Implications of Logistics 4.0 in Future Warehousing: A Sri Lankan Perspective
Navodika Karunarathna, Ruwan Wickramarachchi and Kasuni Vidanagamachchi, Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka

8:20 – 8:40 (Wednesday)

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<tr>
<th>Dr. Ruwan Wickramarachchi</th>
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<tr>
<td>Department of Industrial Management, Faculty of Science</td>
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<td>University of Kelaniya, Sri Lanka</td>
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ID 289  A Model for Assessing Maturity of Industry 4.0 in the Banking Sector
Oshadhi Bandara, Kasuni Vidanagamachchi and Ruwan Wickramarachchi, Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka

8:40 – 9:00 (Wednesday)

<table>
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<tr>
<th>K Subash Nirmal</th>
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<tr>
<td>Department of Industrial and Systems Engineering</td>
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<td>Indian Institute of Technology, Kharagpur, West Bengal, India</td>
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</tbody>
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ID 342  Early Detection of Equipment Failure using One-class Support Vector Machine
K Subash Nirmal, Prince Agarwal and K Nageswara Reddy, Department of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

9:00 – 9:20 (Wednesday)

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<tr>
<th>Hermanto Dwiatmoko</th>
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<tr>
<td>Lecturer, Faculty of Engineering</td>
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<td>University of Mercu Buana, Jakarta Indonesia</td>
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8:00 – 9:30, WEDNESDAY  Supply Chain Management (SCM)  Room 3

Session Chair: Muhammad Waqas Iqbal, Hongik University, Seoul, South Korea

ID 100  Sustainability Framework for Farm Level Cotton Supply Chain Management
Sonia Nazeer and Puwanart Fuggate, School of Logistic and Supply Chain, Naresuan University, Phitsanulok, Thailand

ID 115  Optimisation of Distribution System in the Retail Industry: An Australian Retail Industry
Mohammad Amjad, Faculty of Engineering and Information Technology, University of Technology Sydney, NSW 2007, Australia
Jay Daniel, Derby Business School, University of Derby, Derby, DE22 1GB, UK
Jose Arturo Garza-Reyes, Centre for Supply Chain Improvement, University of Derby, Derby, DE22 1GB, UK
ID 340 Demand Modelling and Establishment of Supply Chain Management for Coconut Sugar in the Philippines
Mary Christy O. Mendoza and Erica Racquel G. Cruz, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila

ID 347 Optimal production planning of hybrid manufacturing/ remanufacturing systems under deteriorations
Anne Francesso Koueddeu, Jean-Pierre Kèned and Victor Songmene, Department of Mechanical Engineering, Laboratory of Integrated Production Technologies, University of Quebec, École de technologie supérieure, 1100 Notre-Dame Street West, Montreal, Quebec, Canada

ID 569 The Improvement of Technology Utilization in the Framework of the Competitiveness and Sustainability of Indonesia Palm Oil Industry
Sawarni Hasibuan, Master of Industrial Engineering Program, Universitas Mercu Buana, West Jakarta 11650, Indonesia
Julita Hidayati, Department of Industrial Engineering, Faculty of Engineering, Universitas Sumatera Utara, Medan, Indonesia

ID 096 Advanced Preservation Policy for Deteriorating Products during Transportation and at Retailer within a Supply Chain
Muhammad Waqas Iqbal and Yuncheol Kang, Department of Industrial Engineering, Hongik University, Seoul, South Korea

8:00 – 9:30, WEDNESDAY Modeling and Simulation Room 4

Session Chair: Rene D. Estember Mapua University, Manila, Philippines

ID 039 Reasoning Types in an Industrial Engineering/Operations Management
Muhtitn Oral, Graduate School of Business, Özyeğin University, İstanbul, Turkey
Ossama Kettani, Modellium, Inc., Centre Ville, Quebec City, Canada

ID 223 Budget Allocation Model for Public Senior High School Academic Programs
Rene D. Estember and Chrystalline Gale Y. Calvez, School of Industrial Engineering and Engineering Management, Mapua University, Manila, Philippines

ID 261 Modelling the Effects of Friction on Tool-Chip Interface Temperature during Orthogonal Cutting of Al6061-T6 Aluminium Alloy
Sunday Joshua Opio, Sikiru Oluwarotimi Ismail and Kelechi Ogbonu, Department of Mechanical Engineering, University of Lagos, Akoka-Yaba, Lagos, Nigeria

ID 382 Investigating the Adoption of Internet of Things Technology Using Agent Based Simulation
Mohammed Basingab, Industrial Engineering Department, King Abdulaziz University, Jeddah, 22252, Saudi Arabia

ID 385 Numerical Simulation for Shoreline Erosion by Using New Formula of Longshore Sediment Transport Rate
Subiyanto and Yudi Nural Ihshan, Department of Marine Sciences, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia
Sukono and Sudrajat Supian, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Aceng Sambas, Department of Mechanical Engineering, Universitas Muhammadiyah Tasikmalaya, Indonesia
Acmad Riza, Department of Fishery, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia
Muhammad Fadhlil Ahmad, Department of Maritime Technology, School of Ocean Engineering, Universiti Malaysia Terengganu, Malaysia
Mustafa Mamat, Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia
Abdul Tallib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 390 Numerical Simulation of Interferon Alpha (INF-α) in Mathematical Model of Immunotherapy
Subiyanto, Department of Marine Sciences, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia
Sukono and Sudrajat Supian, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Yuyun Hidayati, Department of Statistics, 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, Malaysia
Abdul Tallib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

8:00 – 9:30, WEDNESDAY Quality Control and Quality Management Room 5

Session Chair: Pankaj Dutta, Indian Institute of Technology Bombay, Powai, Mumbai, India

ID 020 Integrated Quality Environmental Management Practices and its Impact on Operational and Environmental Performances in Food Processing SMEs
Jamaludin K.R., Hayati Habibah Abdul Talib & Syed Ali Raza Shah, Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

ID 050 Importance of Traceability, Quality and Safe Food for Good Health of Human
Khan Mohammad Elias and Agriculturist Ripon Kumar Ghose

ID 062 Application of Hyperbinomial Distribution in Developing a Modified p-Chart
Shourav Ahmed, Gulam Kibria and Kais Zaman, Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 366 Autocorrelated Multivariate Control Chart in Cooking Oil Industry

ID 374 A Case Study on Average Handling Time of Calls in Teleperformance Company
Ramón C. Gloria III, Frendilyn Myca Valenie P. Ubina and Bradley James D. Villanueva, Department of Industrial Engineering, Technological Institute of the Philippines, Queiro, Metro Manila
Janina Elyse A. Reyes, Industrial Engineering Department, Technological Institute of the Philippines, Quiapo Metro Manila, Philippines

ID 653 Semiconductor's Automotive Burn-in Testing Improvement by Using Six Sigma
Norzima Zulkifli and Haresh Kumar Shanmugam, Dept. of Mechanical & Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia

8:00 – 9:30, WEDNESDAY Occupational Safety and Health (OSH) Room 6

Session Chair: Kakrona Din, Mahidol University, Nakhon Pathom, Thailand

ID 225 Assessment of Health and Safety Issues in a Manufacturing Industry
Munim Shaukat, UMT, Lahore, Punjab, Pakistan

ID 238 A Cross-Sectional Study on Occupational Risk Factors of BPO Agents in the Philippines
Ma. Janice J. Gumasing and Jennifer G. Ilagan, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 370 Effect of Using Electronic Map While Driving on Human Error Probability
Lovely Lady, Wathyu Susihono, Industrial Engineering Department, University of Sultan Ageng Tirtayasa, Cilegon – Indonesia
ID 551 Predictive Model Affecting the Fatigue Condition of Drivers in the Philippines
Rianiña D. Borres and Joymie R. Javier, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila

ID 824 Influence of Work Safety and Work Stress on Productivity
Daswir Lelo, Universiti Teknologi Malaysia
She’ri Mohd. Yusof, Razak School Engineering and Advanced Technology, Universiti Teknologi Malaysia
Jan Horas V. Purba, Sekolah Tinggi Ilmu Ekonomi Kesatuan, Bogor, Indonesia

ID 554 In-Depth Analysis of Workplace Accidents in Food Processing Company in the Philippines
Rex Aurelius C. Robielos, Kenn Redric P. Leyba and Charlene L. Ocampo, School of Industrial Eng. & Eng. Management, Mapua University, Intramuros, Manila, Philippines

8:00 – 9:30, WEDNESDAY Waste Management Room 7

Session Chair: Ganeshan Subramanian, Veermata Jijabai Technological Institute, Matunga, Mumbai, India

ID 402 Food Waste in Supply Chains: A Literature Review
Alikha Sidhi Cahyana, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia and Department of Industrial Engineering, Universitas Muhammadiyah Sidoarjo, Sidoarjo, Indonesia
Iwan Vanany and Niniet Indah Arvitrda, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 028 Degradation of Water Hyacinth (Eichhornia Crassipes) to Vermicompost through Application of the Vermicomposting Technology
Mercy M. Manuyuchi and Charles. Mbohwa, Department of Operations and Quality Management, University of Johannesburg, South Africa
Edison. Muzenda, Dept. of Chemical Engineering Tech., Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
Dept. of Chemical, Materials and Metallurgical Engineering, Faculty of Eng. and Tech, Botswana International University of Science and Technology, Palapye, Botswana
Trevor. N. Mutusva, Department of Mathematical Sciences, School of Industrial Sciences and Technology, Harare Institute of Technology, Zimbabwe
Miranda Mpeta, Department of Environmental Engineering, Faculty of Engineering, Chinhoyi University of Technology, Zimbabwe

ID 041 Mining Waste Management for Sustainable Mining Practices
M. M. Manuyuchi and C. Mbohwa, Dept. of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
E. Muzenda, Dept. of Chemical Engineering Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering and Technology, Botswana International University of Science and Technology, P Bag 16, Palapye, Botswana

ID 403 A Technology Foresight Perspective on Household Waste Management Practices
Eta Wahab, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia
Zaurin Ali, Centre For Diploma Studies Department, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

ID 775 Preparation of Polyacrylamide Grafted onto Magnetic Cellulose as Flocculant in Wastewater Pre-treatment Application
Mohd Hizam and Norzita Ngadi, School of Chemical and Energy Engineering, Faculty of Engineering, Universiti Teknologi Malaysia

8:00 – 9:30, WEDNESDAY Facilities Planning and Plant Layout Room 8

Session Chair: Annamalai Pandian, Saginaw Valley State University, Michigan, USA

ID 276 A New Layout Problem for Order-Picking Warehouses
Ömer Öztürkoğlu, Department of Business Administration, Yaşar University, İzmir, 35100 Turkey
Aysegül Mağara, Schneider Electric, İzmir, 35100 Turkey

ID 328 A Study on the Facility Layout and Design of Sugar Plants in the Philippines
Madonna F. Andrada and Muriem R. Biscocho, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila City, Philippines

ID 406 Few Refinements to Capacitated Plant Location Problem
R.R.K. Sharma, Ajay Jha and Himanshu Rahangdale, Department of Industrial and Management Engineering, IIT Kanpur 208016, India

ID 409 Few Refinements to Simple Plant Location Problem
R.R.K. Sharma, Ajay Jha and Urvashi Sharma, Department of Industrial and Management Engineering, IIT Kanpur 208016, India

ID 754 Optimization of Parameters for Sustainable Manufacturing Process – Special Focus on Machining Process
Abdullah Al-Ghielani, Sultan Qaboos University, Oman

ID 766 Reasoning Types in Industrial Engineering/Operations Management Processes
Muhittin Oral, Graduate School of Business, Özyeğin University, Istanbul, Turkey
Ossama Kettani, Modellium Inc., Centre Ville, Québec City, Canada

9:40 – 10:20 am: Wednesday Morning Keynote I
Mr. Anurat Suthamniurn
Executive Vice President, Corporate Food Processing & Engineering CPF (Thailand) Public Company Limited, Silom, Bangkok, THAILAND
“Innovation for Sustainability”

10:20 – 11:00 am: Wednesday Morning Keynote II
Prof. Dr. Thumrongrut MUNGCHAROEN (RUTT)
Chairperson of Energy and Environment Cluster, National Science and Technology Development Agency (NSTDA) Ministry of Science and Technology, THAILAND and Kasetsart University, Bangkok, Thailand

11:00 – 11:30 – Networking Break - Exhibition Hall
March 6, 2019 (Wednesday)

Session: 11:30 am – 1:00 pm

### Global Engineering Education VI

**Room 1**

**Session Chair:** Hamid R. Parsaei, Texas A&M University at Qatar, Doha, Qatar

- **11:30 – 12:00 (Wednesday)**
  - Dr. Annamalai Pandian
    - Associate Professor
    - Department of Mechanical Engineering
    - Sabrannawal Valley State University, Michigan, USA
  - **ID 031** Vision Guided Robotics Research Study
    - Annamalai Pandian and Kyle Bruce, Mechanical Engineering Department, Saginaw Valley State University, University Center, MI 48710, USA

- **12:00 – 12:30 (Wednesday)**
  - Dr. Manali Kahirsar
    - Principal
    - Rajiv Gandhi College of Engineering and Research
    - Wananongri, Nagpur, India
  - **ID 217** The Role of Program Advisory Board in Elevating the Degree Program Content
    - Albertus Retnanto
    - Professor of the Practice, Petroleum Engineering
    - Texas A&M University at Qatar
    - Hamid R. Parsaei, Mechanical Engineering, Texas A&M University at Qatar
    - Boback Parsaei, Integrated Technology Systems, Inc., Houston, Texas

- **12:30 – 9:00 (Wednesday)**
  - Dr. Albertus Retnanto
    - Professor of the Practice, Petroleum Engineering
    - Texas A&M University at Qatar

### Panel Session on Supply Chain Sustainability

**Room 2**

**Panel Chair:** Professor Jose Arturo Garza-Reyes, University of Derby, UK

- **Panel Speaker I**
  - Engr. Hemendra Nath Roy
    - Supply Chain Superintendent
    - GILDAN® G.A.B. Limited
    - Polashbari, Asulia, Savar, Dhaka, Bangladesh
  - **Panel Speaker II**
    - Supply Chain Dynamics-Perspectives of Bangladesh
    - Surakarta, Indonesia

- **Panel Speaker III**
  - Dr. Luis Rocha Lona
    - Lecturer in Operations Management, Business School
    - National Polytechnic Institute of Mexico
    - Mexico City, Mexico
  - **Panel Speaker IV**
    - Dr. Wahyudi Sutopo
    - Associate Professor and Head
    - Department of Industrial Engineering
    - University of Sebelas Maret
    - Surakarta, Indonesia

- **Panel Speaker V**
  - Dr. Jiří Tupa
    - Vice Dean for Faculty Development
    - Faculty of Electrical Engineering
    - University of West Bohemia
    - Pilsen, Czech Republic

### Sustainability in Supply Chain

**Room 3**

**Session Chair:** Ömer Öztürkoğlu, Department of Business Administration, Yaşar University, Izmir, TURKEY

- **ID 608** A Conceptual Framework to Optimise the Impact of Embodied Energy and Operational Energy in Buildings during the Design Stage
  - Tennakoon G.A, Waidyasekara K G.A.S and Ekanayake B.J, Department of Building Economics, University of Moratuwa, Moratuwa, Sri Lanka

- **ID 082** A Conceptual Framework Of Multi Objective Optimization For International Perishable Food Supply Chain Under Stochastic Demand And Fuzzy Deterioration Rate
  - Samathachai Yamsa-ard, Department of Research, NEOMA Business School, Mont Saint Aignan, 76130, France
  - Fouad Ben Abdelaziz
    - Department of Information systems, Supply chain management and Decision-making, NEOMA Business School, Mont Saint Aignan, France

- **ID 144** CSR Strategies and Pricing Decisions of Competitive Firms under Uncertainty Demands
  - Bo Li, College of management and Economics, Tianjin University, Tianjin, China
  - Junhong Yang, School of Mechanical Engineering, Tianjin University, Tianjin, China

- **ID 151** City Carbon Footprint Adaptation on Green Supply Chain and Logistics of Food Production and Consumption
  - Kunlata Sia, Graduate program in Logistics Engineering and Supply chain Management, Department of Industrial Engineering, Chiang Mai University, Thailand
  - Sate Sampattagul, Department of Industrial Engineering, Center of Excellent on Energy, Economic and Ecological Management (3E), Chiang Mai University, Thailand

- **ID 453** Developing a Planning Model for Supplying First Aid Medicine after Cyclone in Southwest Coastal Areas of Bangladesh
  - Tamanna Islam and Salim Hossain, Department of Industrial and Production Engineering, Khulna University of Engineering & Technology, Dhaka, Bangladesh

- **ID 560** Performance Improvement of Shrimp Feed Raw Materials in Green Supply Chain
  - Sawarni Hasibuan
    - Master of Industrial Engineering Program, Universitas Mercu Buana, Jakarta, Indonesia
  - Juliza Hidayati
    - Department of Industrial Engineering, Faculty of Engineering, Universitas Sumatera Utara, Medan, Indonesia
  - Sawarni Hasibuan, Master of Industrial Engineering Program, Universitas Mercu Buana, Jakarta, Indonesia

### Manufacturing

**Room 4**

**Session Chair:** Aezeden Mohamed, PNG University of Technology, Lae, MP 411, Papua New Guinea

- **ID 038** Application of Lean Manufacturing Concepts in Production System
  - Muhammad Umair Furqan
    - Surgicon Pvt. Ltd, Lahore, Punjab, Pakistan

- **ID 239** A Method to Ensure IE Standards, Capacity Planning and Actual Measurement in Perfect Synchronization for Right Investment Decision
  - Lim Chun Pei and Lim Nling Siong, Infineon Technologies (Malaysia) Sdn. Bhd., Matalca 75350, Malaysia
  - Tang Ho Hwa, Infineon Technologies Asia Pacific Pte. Ltd., 349253, Singapore
11:30 – 1:00, WEDNESDAY Systems Engineering Room 5
Session Chair: Liesly Liesly, Tarumanagara University, Jakarta, Indonesia

ID 155 Systems Thinking View on Impact of Single Common Tax on Warehousing Industries in India
Pryankshu Mukhopadhyha, Shreeya Shahu and Dr. Pravin P. Tambe, Department of Manufacturing and Management, Nagpur, Maharashtra, India

ID 579 Using Petri Net Petri for assessing safety barriers performance Case study: Oil and Gas Industry
Mouloud Bourareche and Rachid Nait-Sad, Institute of Health and Occupational Safety, Laboratory of Research in Industrial Prevention (LRIP), University of Batna, Algeria

ID 114 Success Factors for ERP Implementation: A Systematic Literature Review
Mohamed-Iliasse Mhazr and Abdelaziz Berrada, Département Génie industriel, École Mohammadia d’Ingénieurs, Mohammed V University of Rabat, Loubna Benabou, Départements Sciences de la Gestion, Université du Québec à Rimouski (UQAR) Campus de Lévis, Québec, Morocco

ID 479 Factors Influencing Knowledge Transfer activities in Enterprising Resource Planning Success for Food Manufacturing
Nur Izzah Muallah, A.H. Nor Azati, T. Rosmaini, A. Nor Hazana and S.W. Chan, Faculty of Technology Management & Business, University of Tun Hussein Onn, Malaysia

ID 574 Development Sophistication Degree of New Components of Technometrics Using Concept Mapping
Novi Maryiana, Department of Industrial Engineering, Universitas Islam Sultan Agung, Semarang, Indonesia
Alva Ety Tontowi and Hari Agung Yuniarto, Department of Mechanical and Industrial Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia

ID 828 User-Entity Behavior Analytics (UEBA) – A Systematic Review of Literatures
Revanth Filbert Raj I and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 300 Challenges of Total Quality Management in Higher Education Institutions
Abdullah Al-Amri and T.C. Wong, Department of Design, Manufacture and Engineering Management, University of Strathclyde, Glasgow, UK

11:30 – 1:00, WEDNESDAY Data Analytics and Big Data Room 6
Session Chair: Aminnudin Sudir, Veermata Jijabai Technological Institute, Matunga, Mumbai, India

ID 033 Customer Churn Prediction Using a New Criterion and Data Mining: A Case Study of Iranian Banking Industry
Davoud Ghodamiaiongabadi and Jamal Shahrazi, Dept. of Industrial Engineering and Management Systems, Amirkabir University of Technology (Tehran Poly), Iran
Seyed Mohamad Hosseinioun, Industrial and Systems Engineering Department, Northern Illinois University, Chicago, USA
Sanaz Nakhodchi, Department of Computer Engineering, Iran University of Science and Technology, Tehran, Iran
Soma Gholamiangonabadi and Adele Shahi, Dept. of Industrial Engineering and Management Systems, Amirkabir University of Technology (Tehran Polytechnic), Iran

ID 098 Customer Churn Prediction Using a Meta-Classifier Approach: A Case Study of Iranian Banking Industry
Davoud Ghodamiaiongabadi and Adele Shahi, Dept. of Industrial Engineering and Management System, Amirkabir University of Technology (Tehran Polytechnic), Iran
Sanaz Nakhodchi, Department of Computer Engineering, Iran University of Science and Technology, Tehran, Iran
Ammar Jalalimamsh, Iranian Research Institute for Information Science and Technology (IRANDOC), Tehran, Iran

ID 133 Hypothesis Combination using Genetic Algorithm
Kuan-Yu Lai, Jhin-Wun Wang and Chien-Liang Liu, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan, ROC

ID 204 Comparison between Hadoop and Spark
Housain Benbrahim, Hanah Chachimi and Aouatif Amine, Systems Eng. Lab-y, BOSS-Team, National School of Applied Sciences, Ibn Tofail University, Kenitra, Morocco

ID 336 Hidden Markov Models to Detect Early Equipment Failure
Prince Agarwal, K Subash Nirmal, K Nageswara Reddy, Akhilesh Kumar, Dept. of Industrial and Systems Eng., Indian Institute of Technology, Kharagpur, West Bengal, India

ID 770 Review of the Implementation Status & Associated Challenges for Industry 4.0 Transformation in Asian MSMEs
Sanjiv Narula, Vishal Taiwar, Maheshwar Taiwar, Surya Prakash and saravjit singh, BML Munjal University, Gurgaon, India

11:30 – 1:00, WEDNESDAY e-Business/e-Service/e-Commerce Room 7
Session Chair: Rahela Farooqi, Centre for Management Studies, Jamia Millia Islamia, New Delhi, India

ID 070 Customer Visit Segmentation in an Online Retail Market
Partha Sarathi Mishra and Jitendra Kumar Jha, Department of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, India

ID 206 Creating a KPI Tree for Monitoring and Controlling Key Business Objectives of First Mile Logistics Services
Sudipto Dasgupta, Sarvartha Kananch and Tridev Kundu, Supply Chain Design, Flipkart Internet Pvt. Ltd., Bangalore, India

ID 358 Impacts of E-commerce in Apparel Supply Chain
Shibir Ahmad, SUST, Bangladesh
11:30 – 1:00, WEDNESDAY
Room 8

ID 013 Methane Generation from Landfill Waste as a Resource Recovery Strategy
Mercy Manyuchi, Department of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
Department of Chemical and Processing Engineering, Faculty of Engineering, Manicaland State University of Applied Sciences, Zimbabwe
C. Mbohwa, Dept. of Operations and Quality Management, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
M. Mpeta, Department of Environmental Engineering, Faculty of Engineering, Chinhoyi University of Technology, Zimbabwe
E. Muzenda, Department of Chemical Engineering and Technology, Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa
Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering and Technology, Botswana International University of Science and Technology, P Bag 16, Palapye, Botswana

1:00 – 2:30 – Networking Lunch Buffet

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

Mr. Dieter Broeckl
Senior Vice President and Head of Digital Factory (DF) / Process Industry and Drive (PD) Division
Siemens Limited Thailand

Session – Wednesday (March 6): 2:30 – 4:00 pm

2:30 – 4:00, WEDNESDAY
Room 1

Session Chair: Jedsada Tipmontian, King Mongkut’s institute of Technology Ladkrabang (KMITL) Thailand

2:30 – 3:00 (Wednesday)
Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
Sorocaba, Sao Paulo, Brazil
Engineering Education for Industry 4.0

3:00 – 3:30 (Wednesday)
Prof. Dr. Ripu Ranjan Sinha
Director General, Asia Africa Development Council Founder, The India – Africa ICT Knowledge Consortium Professor, S S Jain Subodh P G College, Jaipur Associate Dean for Research Affairs Suresh Gyan Vihar University, Jaipur, India

3:30 – 4:00 (Wednesday)
Jedsada Tipmontian, Ph.D.
Assistant Dean International Academy of Aviation Industry King Mongkut’s institute of Technology Ladkrabang, Thailand Board Member, Thai Association for Cooperative Education

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2:30 – 4:00, WEDNESDAY  PANEL SESSION on Women in Industry and Academia  Room 2
Panel Chair: Dr. Kanchana Sethanan, Khon Kaen University, Thailand

ID 344 Higher Initial Costs for Renewables Electricity: Emission, Water and Job-Creation Benefits Offset the Higher costs
Md. Mizanur Rahman, Hasan Mohd Faizal, Aminuddin Saat and Mazlan Abdul Wahid, Department of Thermo Fluids, School of Mechanical Engineering, Universiti Teknologi Malaysia, 81310 UTM, Johor Bahru, Malaysia

2:30 – 4:00, WEDNESDAY  Sustainability and Green Systems  Room 3
Session Chair: M. Haider Ali Biswas, Mathematics Discipline, Khulna University, Khulna-9208, Bangladesh

ID 606 Supply Chain Management of Facility Operations and Maintenance Functions in Apparel Sector
F.N. Abdeen, Y.G. Sandanayake and T. Ramachandra, Department of Building Economics, University of Moratuwa, Sri Lanka

ID 065 Process of Recovering Diesel from Waste Plastics: A Review
Ignatio Madanhire and Liberty Nyahunda, Department of Mechanical Engineering, University of Zimbabwe, Mount Pleasant, Harare, Zimbabwe
Charles Mbohwa, Department of Quality Management and Operations Management, University of Johannesburg, Auckland Park, South Africa

ID 066 E-Waste Recycling to Recover Base and Precious Metals
Ignatio Madanhire and Liberty Nyahunda, Department of Mechanical Engineering, University of Zimbabwe, Mount Pleasant, Harare, Zimbabwe
Simon Chinguwa and Charles Mbohwa, Department of Quality Management and Operations Management, University of Johannesburg, Auckland Park, South Africa

2:30 – 4:00, WEDNESDAY  Construction Management  Room 4
Session Chair: Wellington Didi Thwala, University of Johannesburg, Doornfontein Campus, Johannesburg, South Africa

ID 021 Contractors Perception towards Excavation Hazard
Clinton Algabaob, Sustainable Human Settlement and Construction Research Centre, Department of Construction Management & Quantity Surveying, University of Johannesburg, Doornfontein Campus, Johannesburg, 2028, South Africa
Zakari Mustapha, School of Engineering, Department of Building Technology, Cape Coast Technical University, Cape Coast, Ghana
Wellington Didi Thwala, Sustainable Human Settlement and Construction Research Centre, Department of Construction Management & Quality Surveying, University of Johannesburg, Doornfontein Campus, Johannesburg, 2028, South Africa

ID 022 Major Excavation Hazard in Cape Coast Metropolis
Wellington Didi Thwala, Sustainable Human Settlement and Construction Research Centre, Department of Construction Management & Quality Surveying, University of Johannesburg, Doornfontein Campus, Johannesburg, 2028, South Africa
Zakari Mustapha, School of Engineering, Department of Building Technology, Cape Coast Technical University, Cape Coast, Ghana
Clinton Algabaob, Sustainable Human Settlement and Construction Research Centre, Department of Construction Management & Quality Surveying, University of Johannesburg, Doornfontein Campus, Johannesburg, 2028, South Africa

ID 034 A Study of the Owners Related Factors affecting the Performance of Tertiary Educational Building (TEB) Projects
Oluwusayo Adewumi Aderokun, Dept. of Quantity Surveying, School of Environmental Technology, Federal University of Technology, Akure, Nigeria

ID 332 Construction Industry and Women: A Review of the Barriers
Abdussalam Shibani, Lecturer in Construction and Project Management, Coventry University, UK
Noof alawanati Msc, Construction Management, Coventry University, UK

ID 632 The Analysis of Pros and Norms of Outsourcing Logistics Operational Activities in the Construction Industry in South Africa
Kaftego Frans Letsoko and Xhani Dyonase, Dept. of Operations Management and Quality Assurance, University of Johannesburg, South Africa
Head of Research unit on System Modeling for Industry
Assisstant Professor in Life Cycle Assessment (LCA)
Dr. Kanchana Sethanan
Panel Chair

ID 645 Property Rights on Existing Reconstruction and Development Program Houses (RDP) - Literature review
Mashwama Nokulunga, Gladness Makgobi and Thwala Didi, Department of Construction Management and Quantity Surveying, University of Johannesburg, South Africa
SARCHI in Sustainable Construction Management and Leadership in the Built Environment, University of Johannesburg/ Johannesburg, South Africa

2:30 – 4:00, WEDNESDAY  Energy  Room 5
Session Chair: Mohamed Belaid, University of Johannesburg, South Africa

ID 344 Higher Initial Costs for Renewables Electricity: Emission, Water and Job-Creation Benefits Offset the Higher costs
Md. Mizanur Rahman, Hasan Mohd Faizal, Aminuddin Saat and Mazlan Abdul Wahid, Department of Thermo Fluids, School of Mechanical Engineering, Universiti Teknologi Malaysia, 81310 UTM, Johor Bahru, Malaysia
2:30 – 4:00, WEDNESDAY  Human Factors and Ergonomics  Room 6

Session Chair: Yoshiki B. Kurata, Technological Institute of the Philippines

ID 470  Effects of Working Environment and Stress on Sick Building Syndrome among Manufacturing Employees
Nor Hazana Abdullah, Eta Wahab, Aina Shamsuddin and Nor Azizi Hamid, Faculty of Technology Management, Universiti Tun Hussein Onn Malaysia

ID 548  An Ergonomic Design of Birthing Chair for Public Maternity Hospitals in the Philippines
Rianina D. Borres and Angel K. Javier, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 549  Ergonomic Design of NLEX Toll Booth in the Philippines
Jenalyn Shigella G. Yandug and Marvin L. Cruz, School of Industrial Engineering Department, Veermata Jijabai Technological Institute, Matunga, Mumbai, India

ID 553  Effects of Internal and External Sources of Distraction to the Driving Performance of Filipino Drivers
Rex Aurelius C. Robiolo and Yebeth Angelyn P. Tuliao, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila, Philippines

ID 582  Digital Human Modeling in Ergonomic Risk Assessment of Working Postures using RULA
M. Manzoor Hussain, Department of Mechanical Engineering, Jawaharlal Nehru Technological University, Hyderabad, Telangana State, India
Qutubuddin S.M., Industrial and Production Engineering Department, P.D.A. College of Engineering, Gulbarga, Karnataka State, India
Katuru Phani Raja Kumar, Project Manager, Tech Mahindra Americas, USA
Ch. Kesava Reddy, Mechanical Engineering Department, MGIT, Hyderabad, INDIA

ID 426  Work-related Factors Affecting the Sustained Attention among Production Workers in a Pharmaceutical Company in the Philippines
Charlene Caraiga, Alyza Marie D. Tolentino, August Adrian A. Castor, Khenn S. Arista, John Nathanoj A. Basillo and Yoshiki B. Kurata, Department of Industrial Engineering, Technological Institute of the Philippines, Quezon City, Philippines

ID 593  Implementation of Karakuri Kaizen to Improve Productivity and Ergonomics in Wire Rope Industry
Izzat Muhaimin Madisa, Mohd Firdaus Mohd Taib and Norba'ayah Ahmad Reza, Department of Materials, Manufacturing and Industrial Engineering, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia

2:30 – 4:00, WEDNESDAY  Decision Sciences  Room 7

Session Chair: Finni Anissa, University of Quebec at Rimouski, Levis, Quebec, Canada

ID 272  Optimization in Personnel Scheduling for Local Content Verification
Rahmat Nurcahyo, Setio Agung Wibowo, Amar Rachman, Industrial Engineering Dept., Faculty of Engineering, Universitas Indonesia, Kampus UI Depok, 16424, Indonesia
Alan Dwi Wibowo, AgroIndustriial Engineering Dept., Faculty of Agriculture, Universitas Lambung Mangkurat, Jl A Yani KM 36, Banjarbaru, Kalimantan Selatan, Indonesia

ID 295  A Rough-Set Based-Approach for Anticipating Competitor's Decisions
Dhekra Ben Sassi, Department of Information Systems, College of Computer Engineering and Science, Prince Sattam Bin Abdulaziz University, Al Kharej, KSA
RIADI laboratory, National School of Computer Science, La Manouba, Tunisia
Finni Anissa, Dept. of Management Science, University of Quebec at Rimouski, Levis, Canada, boulevard Alphonse-Desjardins Lévis (Québec) Canada

ID 469  An Interactive Analytic Hierarchy Process for Product Recommendation: A Case Study in Studio Recording
Sudatip Puengrusme, Stamford International University, Bangkok 10110, Thailand
Udom Janjarassuk, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang, Bangkok 10520, Thailand

ID 835  Comparison of Mandated CSR Performance Models across Various Industries in India
Kavya Suresh and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 836  Develop a Decision Support System (DSS) for Social Activities by Companies in India
Shushtan Pal and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

ID 521  Data Screening Technique for Developing a Crude Oil Price Forecasting Models for Petroleum Industry
Abdul Ta'llib Bon and Nuhu Isah, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Malaysia
**ID 769**  A Conceptual Framework on the Role of Road Safety Management Intervention in Overcoming Road Accident

Siti Hawa Harith and Norashikin Mahmud, Azman Hashim International Business School, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia

**2:30 – 4:00, WEDNESDAY**  Reliability and Maintenance  Room 8

Session Chair: John Pumwa, PNG University of Technology, Papua New Guinea

**ID 122**  A Methodology for Combined Maintenance Decision with Quality Control and Production Scheduling for Multi Machine System

Pravin P. Tambe, Department of Industrial Engineering, Shri Ramdeobaba College of Engineering & Management, Nagpur, India

**ID 250**  Photovoltaic plant Production and Maintenance Forecast

Hajej Zied and Rezg Nidhal, LGIPM UFR MIM, Lorraine University, Metz, 57073, France

**ID 302**  Predictive Maintenance as a Means to Improve the Availability of Centrifugal Slurry Pump at Ergo City Deep Plant

Aroon Martinus, Jan Harm C Pretorius and Arie Wessels, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

**ID 490**  Stochastic Analysis of a Three Unit Series Parallel System

Venkata S S Yadavalli, Department of Industrial & Systems Engineering, University of Pretoria, Pretoria, South Africa

2:30 – 4:00, WEDNESDAY  Room 8

**ID 607**  Maintenance Scheduling and Optimization of Wind Parks: Models and Methods

Mahmood Shafiee, Department of Energy and Power, Cranfield University, Bedfordshire MK430AL, UK

4:00 – 4:30 pm – Networking Break

**4:30 – 6:00, WEDNESDAY**  Global Engineering Education VIII  Room 1

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

Trynos Gumbo
Associate Professor and Head of the Department of Town and Regional Planning
Faculty of Engineering and the Built Environment
University of Johannesburg (UJ), South Africa

Dr. Niraj Gupta
Dean and Professor, FoME
Shri Ramswaroop Memorial University
Lucknow, Uttar Pradesh, India

**ID 780**  The Project Based Learning Combined with Problem Solving Based Learning in Industrial Engineering Programs

Eldon Caldwell, Smart, Lean and Cognitive Systems Laboratory, Industrial Engineering Department, University of Costa Rica, San José, Costa Rica

4:30 – 6:00, WEDNESDAY  Room 2

**PANEL SESSION Industry 4.0**

Prof. Athakorn Kengpol
Professor of Industrial Engineering
Faculty of Engineering
King Mongkut’s University of Technology North Bangkok, Thailand

Professor Kanchana Sethanan
Industrial Engineering
Faculty of Engineering
Khon Kaen University, Thailand

Dr. Sakgasem Ramingwong
Associate Professor in Industrial Engineering
Faculty of Engineering
Chiang Mai University, Thailand

Asst. Prof. Dr. Warisa Wisitithipanich
Faculty of Engineering
Chiang Mai University, Thailand

Dr.-Ing. Patrick Dallasega
Assistant Professor in Industrial Engineering, Faculty of Science and Technology
Free University of Bolzano, Italy

4:30 – 6:00, WEDNESDAY  Room 3

**Supply Chain Management (SCM)**

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

**ID 149**  Collaborative Supply Chain in Auto Service in India

Debabrata Bhattacharjee, Country Head, Indian Oil Corporation Limited, Yangon Branch, Myanmar

**ID 222**  Foreign Exchange Risk Sharing Arrangement and Optimal Inventory Ordering Policies

Suresha Kharvi, Mangalore University Mangalagangotri, India

G. Srinivasan, Faculty of Administration, University of Brunswick, Canada

**ID 243**  A Best Practice Reference Model for Agricultural Supply Chain for Rice

W.M.S.K. Weerabahu and L.D.J.F. Nanayakkara, Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka

**Session – Wednesday (March 6): 4:30 – 6:00 pm**

**ID 243**  A Best Practice Reference Model for Agricultural Supply Chain for Rice

W.M.S.K. Weerabahu and L.D.J.F. Nanayakkara, Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka

**ID 490**  Stochastic Analysis of a Three Unit Series Parallel System

Venkata S S Yadavalli, Department of Industrial & Systems Engineering, University of Pretoria, Pretoria, South Africa

**ID 607**  Maintenance Scheduling and Optimization of Wind Parks: Models and Methods

Mahmood Shafiee, Department of Energy and Power, Cranfield University, Bedfordshire MK430AL, UK
**ID 275**  
Sustainability Perspective in Aggregate Production Planning Model with Fuzzy Parameters  
Vo Thi Kim Cuc, Nguyen Truong Thi and Tran Thi My Dung, Department of Industrial Management, College of Engineering & Technology, Can Tho University, Vietnam

**ID 286**  
Technology-driven LPG Supply Chain Integration - A Case of Pakistan  
Farhan Daud Qazi and Ijaz Ahmad Chaudhry, Industrial Engineering Department, School of Engineering, University of Management and Technology, Lahore, Pakistan  
Omar Zaid, Production Manager, Hadeed Pakistan Pvt. Limited, Sheikhupura, Pakistan

**ID 723**  
SMOSA Optimization Approach to a Multi Objective Model for a Machine Tool Selection and Operation Allocation Problem in FMS  
Roозbeh Azizmohammadi, Department of Industrial Engineering, Payame Noor University, Tehran, Iran  
Mahmoudabadi Abbas, Department of Industrial Engineering, MehrAsian University, Gulance, Iran

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### 4:30 – 6:00, WEDNESDAY  
**Data Analytics**  
Room 4

**ID 459**  
On Applying Big Data to Transform the Inspection Lines  
JrJung Lyu, Chia-Wen Chen, and Hong Yu Chen, Department of Industrial and Information Management, National Cheng Kung University, Taiwan

**ID 487**  
Innovative Undergraduate Degree Programs in Data Science and Business Analytics  
Shahram Taj, Florida Polytechnic University, Lakeland, Florida, United States

**ID 559**  
A Data Analytics Model of Bankability versus Economic Factors: East Java Region Case  
Hana Aulia Diah Ramadhaniri and Erwin Widodo, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

**ID 597**  
Application of Data Mining for Exploring Hidden Patterns in Tuberculosis Patients  
Farzad Firouzi Jahantahri and Maryam Ostovare, Industrial Engineering Department, Sistan and Baluchestan University, Zahedan, Iran

**ID 489**  
State of Model Risk: A Comprehensive Review of Model Validation and Model Risk Management Approaches in the Age of Machine  
Murphy Choy, Edinburgh Business School, Heriot Watt University, UK

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**Session Chair:** Ma Nang Laik, Singapore University of Social Science, Singapore

**Session:**  
**ID 673**  
AMBHigh: A User Ergonomic Mobile Learning Application Intended for Business Management Secondary Students in the Philippines  
Valerie B. Peralta, Jerrann Del R. Mundo, Patrick James M. Palma, Bert Regin S. Santiago, Cohesir V. Sims, Francis I. Sulit and Yoshiki B. Kurata, Industrial Engineering Department, Technological Institute of the Philippines – Quezon City, Quezon City, Philippines

**ID 762**  
Understanding the Antecedents of Social Media Fatigue  
Shih-Chih Chen, Dept. of Information Management, National Kaohsiung University of Science and Tech, Kaohsiung, Taiwan, Republic of China

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### 4:30 – 6:00, WEDNESDAY  
**Defense and Design Analysis**  
Room 5

**Session Chair:** Sumit Shandilya, Academy for Performance & Excellence, Gurgaon, Haryana, India

**ID 154**  
A Markovian Perspective of Airport Departure Process  
Ch V Sai Praveen and Mayank Anand, Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

**ID 507**  
New Ordering Approach Specific Airline Industry  
Redemptor V. Carìno, Master of Science in Industrial Engineering Management, Polytechnic University of the Philippines

**ID 651**  
Theoretical Examination of Sustainability on Low Cost Affordable Housing and Corporate Governance  
Mashwama Nokulunga, Gladness Makgobi and Aigbavboa Clinton, Dept. of Construction Management and Quantity Surveying, University of Johannesburg, South Africa

**ID 368**  
An Optimization Model for the Design of an Off-Grid Micro-Hydro Power Plant  
Juan Carlo Hernandez, Carlos Jan Peñas, Adrianne Ressa Tiu and Charlle Sy, Industrial Engineering Department, De La Salle University, Manila, Philippines

**ID 108**  
Heuristic Approaches for Optimizing Multi-echelon Multi-Facility Green Reverse Logistics Network Design  
K Nageswara Reddy, Akhilesh Kumar, Dept. of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

**ID 776**  
Environmental Factor and Road Accident: A Review Paper  
Siti Hawa Harith, Faculty of Social Science and Humanities, Universiti Teknologi Malaysia and School of Business Management, Universiti Utara Malaysia, Kedah, Malaysia

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**Session Chair:** Vijay Kumar M, Department of Industrial Engineering & Management, Visvesvaraya Technological University, Bangalore, India

**Session:**  
**ID 136**  
Proposal of k-Principal Points for Binary Data by Introducing a Dendrogram  
Sunhee Kwon, Graduate School of Business Administration, Meiji University, Tokyo, Japan

**ID 139**  
Deviation Degree between Ideal and Real of Domain Transition Probability in Resource Circulation Considering Production Synchronization Ratio  
Takaaki Kawanaka, Institute for Innovation in International Engineering Education, Graduate School of Engineering, The University of Tokyo, Japan

**ID 833**  
An Analysis of Indian Companies on Whistle Blowing  
M. Raghuraman and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

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**ID 299**  
Identification of Health System Stakeholders in Morocco  
Frichi Youness, Jawab Fouad and Boutahari Said, Lab. of Manufacturing, Energy and Sustainable Development, Sidi Mohamed Ben Abdellah University, Fez, Morocco
RENEWABLE ENERGY MANAGEMENT: TECHNICAL AND ECONOMIC EVALUATION OF AN OPTIMIZED PHOTOVOLTAIC SYSTEM

Hamed Alilaham, Industrial Engineering and Engineering Management Department, College of Engineering, University of Sharjah, Sharjah, UAE
Abdul Kadir Hamid, Electrical and Computer Engineering Department College of Engineering, University of Sharjah, Sharjah, UAE
Ali Cheaitou, Sustainable Engineering Asset Management (SEAM) Research Group and Industrial Engineering and Engineering Management Department, College of Engineering, University of Sharjah, Sharjah, UAE

VULNERABILITY MANAGEMENT (VM) ANALYTICS – A SYSTEMATIC REVIEW OF LITERATURES

Rahul C. N and Sheker Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

E-TOLL INFORMATION TECHNOLOGY IN GTO AND HYBRID IN TOLL GATE MENANGAL – SURABAYA

Rachmatdhany Zayandra Aziz, Sri Wiwudo Mudjianarko, Atik Wahyuni and Hendro Sutowijoyo, Dept. of Civil Engineering, Universitas Narotama, Surabaya, Indonesia
Eko Julianto, Politeknik Perkapalan Negeri Surabaya, Surabaya, Indonesia
Slamet Winardi and Wahyu Mulyo Utomo, Department of Computer System, Universitas Narotama, Surabaya, Indonesia
Dani Harmanto, Department of Mechanical Engineering, Derby University, Derby, UK

4:30 – 6:00, WEDNESDAY Production Planning Room 7

Session Chair: Bhupesh Kumar Lad, Indian Institute of Technology Indore, Indore, India

A STUDY OF WORKFORCE ASSIGNMENT PROBLEM IN LEAN FACTORY ON MACHINE TOOL INDUSTRY

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

REDUCING SCREEN PRINTING LEAD TIME: A QUALITY CONTROL CIRCLE APPROACH

Md. Mamunur Rashid and Sharif Ahmed, Department of Industrial & Production Engineering, Dept. of Yarn Eng., Bangladesh University of Textiles, Dhaka, Bangladesh

ANALYZING THE LOCATION OF FACTORS ON BUILDING CONSTRUCTION COST IN SRI LANKA

Thulasimaaran Parameswaran, T.S. Jayawickrama and D.G. Melagoda, Department of Building Economics, University of Moratuwa, Sri Lanka

A MULTI-OBJECTIVE GENERALIZED INTUITIONISTIC FUZZY LINEAR FRACTIONAL INVENTORY MODEL WITH POSSIBILITY AND NECESSITY CONSTRAINTS

Totan Garai, Department of Mathematics, Silda Chandra Sekhar College, Jhargram, Wes Bengal, India

DISTRIBUTED JOB SCHEDULING USING MULTI-AGENT SYSTEM

Sandeep Kumar and Bhupesh Kumar Lad, Industrial and Systems Engineering, Discipline of Mechanical Engineering, Indian Institute of Technology Indore, Indore, India

A MACHINE LEARNING BASED INTELLIGENT AGENT FOR HUMAN RESOURCE PLANNING IN IC DESIGN SERVICE INDUSTRY

Chieh Hsu, Hsuan-An Kuo, Wenhan Fu, Kang-Ting Ma and Chen-Fu Chien, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan

4:30 – 6:00, WEDNESDAY Entrepreneurship and Innovation Room 8

Session Chair: A Raihan M Harunur Rashid, Islamic University of Technology, Gazipur, Dhaka, Bangladesh

AEROSPACE INDUSTRY IN QUERETARO, MEXICO: A PERSPECTIVE OF REGIONAL INNOVATION SYSTEM

Christian Munoz-Sanchez, Maria del Rocio Soto-Flores and Luis Rocha-Lona, Business School, National Polytechnic Institute of Mexico

WOMEN ENTREPRENEURSHIP IN INDONESIA: CURRENT STATUS AND FUTURE RESEARCH OPPORTUNITIES

Luh Putu Eka Yani and Ammar Mohamed Aamer, Industrial Engineering Department, Faculty of Engineering and Technology, Sampoerna University, Jakarta, Indonesia

INNOVATION PROCESS OF MUSIC COMPOSING: A CASE STUDY IN CONSERVATORY OF MUSIC

Evo Sampetua Hariandja, Department of Management Business School, Universitas Pelita Harapan, Tangerang, Indonesia

DYNAMIC MARKETING CAPABILITY IN START-UP COMPANIES: AN EXPLORATORY INVESTIGATION OF THE FEMALE ENTREPRENEURS

Evo Sampetua Hariandja, Department of Management Business School, Universitas Pelita Harapan, Tangerang, Indonesia

LINKING KNOWLEDGE SOURCING, TRANSFORMATION AND EXPLOITATION ACTIVITIES FOR INNOVATION: EVIDENCE FROM UK MANUFACTURING FIRMS

Arif Hartono, Management Department, Faculty of Economics, Universitas Islam Indonesia, Ringroad Utara, Sleman, Yogyakarta, Indonesia

THE BEHAVIOR AND ENTREPRENEURIAL INTENTIONS OF THE MILLENNIA GENERATION OF INDONESIA, STUDIES IN SURABAYA CITY STUDENTS

Agus Sukoco, M. Ikhson Setiawan, Sniwoko Mudjanarko, Arasy Alimudin and Iswachyu Dhaniarti, Faculty Economy and Business, Narotama University, Surabaya, Indonesia

ACADEMIC – INDUSTRY PARTNERSHIP TO DEVELOP TOMORROW’S ENGINEERING INNOVATORS

Carol S. Gatti, Associate Dean Emeritus, Honors College, Adjunct Associate Professor, Industrial Engineering, University of Arkansas, Fayetteville, AR 72701, USA
Karl D. Schubert, FICT, Research Professor, College of Engineering, Director of Research for Innovation and Data Science Initiatives for the College of Engineering and the Sam M. Walton College of Business, University of Arkansas, Fayetteville, AR 72701, USA
Michele Cleary, Evaluation and Reporting Consultant, Cleary Scientific Intelligence, LLC, Minneapolis, MN 55410, USA

RESEARCH ON APPLICATION OF COMPUTER AIDED TRANSLATION TECHNOLOGY TO TRANSLATION TEACHING

Lu Juan, School of Education, Universiti Teknologi Malaysia; School of Foreign Studies, Shaanxi University of Technology, China
Noraffandy Bin Yahaya, School of Education, Universiti Teknologi Malaysia, Malaysia

7:00 pm – 10:00 pm (Wednesday, March 6)
CONFERENCE AWARD DINNER

AWARD KEYNOTE

Dr. Robert De Souza, Executive Director, The Logistics Institute - Asia Pacific, NUS, Singapore
### March 7, 2019 (Thursday) - Session: 8:00 – 9:30 pm

#### Global Engineering Education IX

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<tr>
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<th>Speaker(s)</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia</td>
<td>ID 839 Knowledge, Attitude and Practices of OSHCIM Implementation Readiness from the Perspective of Clients, Designers and Contractors</td>
<td>Room 1</td>
</tr>
<tr>
<td>8:30</td>
<td>Dr. Kin Keung Lai</td>
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<tr>
<td>9:00</td>
<td>Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia</td>
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<td>Dr. Jafri Mohd Rohani, Universiti Teknologi Malaysia</td>
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#### Industry Solutions IX

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<th>Speaker(s)</th>
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<tr>
<td>8:00</td>
<td>Ihfasuzi Binti Ibrahim</td>
<td>ID 589 Industry 4.0 Gap Analysis for Thai Industries with Association Rules Mining</td>
<td>Room 2</td>
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<tr>
<td>8:40</td>
<td>Dr. Wimalin Laosiritaworn</td>
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<td>Dr. Wimalin Laosiritaworn</td>
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<td>9:40</td>
<td>Natasha Dzulkalnine</td>
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#### Supply Chain Management (SCM)

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<th>Time</th>
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<tr>
<td>8:00</td>
<td>Muhammad Shafiq and Kullapa Soratana, Naresuan University, Phitsanulok</td>
<td>ID 578 Internet of Things, Big Data and Simulation as a Competitive Advantage in the New Age of Industry 4.0</td>
<td>Room 3</td>
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<tr>
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<td>Wimalin Laosiritaworn</td>
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#### Transportation and Traffic

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<tr>
<td>8:00</td>
<td>Jay Daniel, Derby Business School University</td>
<td>ID 418 Seal Slurry Analysis Based On Asbuton Addition and Cement Filler Variation</td>
<td>Room 4</td>
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<tr>
<td>8:40</td>
<td>Elias Abou Maroun, Faculty of Engineering and Information Technology,</td>
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<td>9:00</td>
<td>University of Technology Sydney</td>
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<td>University of Technology Sydney</td>
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</tbody>
</table>
ID 420  Indonesia Airport, Passenger and Aircraft impact on Regional Budget (APBD)
Muhammad Ikhsan Setiawan, Department of Civil Engineering, Narotama University, Surabaya, Indonesia
Agus Sukoco, Department of Management, Narotama University, Surabaya, Indonesia
Paisal Halim, Institut Ilmu Sosial dan Manajemen STIAM, Jakarta, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia
Dani Hermanto, Faculty of Engineering and Technology, University of Derby, UK

ID 424  Airport, Passenger and Aircraft supporting to Regional Growth
Muhammad Ikhsan Setiawan, Department of Civil Engineering, Narotama University, Surabaya, Indonesia
Agus Sukoco, Department of Management, Narotama University, Surabaya, Indonesia
Paisal Halim, Institut Ilmu Sosial dan Manajemen STIAM, Jakarta, Indonesia
Abdul Talib Bin Bon, Fakulti Pengurusan Teknologi dan Perniagaan, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

ID 537  Application of Graph Hamilton on Determining the Shortest Route of Trans Metro Bandung
Yusuf Ibrahim Abdallah, Master Program in Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Yani Ramdani and Yurka Pemanasari, Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Islam Bandung, Indonesia
Suksone, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Subiyanto, Department of Marine Sciences, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bin Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

Room 6
8:00 – 9:30, THURSDAY  Modeling and Simulation

ID 395  Design of Seven Level Dynamic Voltage Restorer for Voltage Sag and Harmonics Mitigation
K Chandrasekaran, University Tunku Abdul Rahman, Kampar, Perak, Malaysia
V.K. Ramachandaramurthy, Power Quality Research Group, University Tenaga Nasional, Malaysia

ID 417  The Effects of Chromosome Length on Hyper-Heuristics for Solving The Maritime Inventory Routing Problems
Nurhadi Siswanto, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 447  Evaluation of Fertilization Storage System Considering Seasonal Demand using Discrete Event Simulation
Nurhadi Siswanto, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 467  Optimal Control Applied to an Economic Model for Reducing Unemployment Problems in Bangladesh
Md. Haider Ali Biswas, Uzzwal Kumar Mallick, Mst. Shanta Khatoon, Mathematics Discipline, Khulna University, Khulna-9208, Bangladesh
Kazi Masum Parves, Joint Director, Bangladesh Bank, Khulna, Bangladesh

ID 590  The Impact of Late Payments on the Financial Performance of a Multi-Echelon Supply Chain: A System Dynamics Modelling Approach
Abdelaziz Berradou, Tarik Saikouk and Mohamed Hicham Salah Eddine, University of Rabat, Rabat, Morocco

© IEOM Society International  Ninth Annual International Conference 53
ID 203  Performance and Optimization of Service Rates & Servers for Closed Finite Queueing Systems
L. Kerbache, Department of Information Systems and Operations Management, HEC Paris, France
J. MacGregor Smith, Department of Mechanical and Industrial Engineering, University of Massachusetts at Amherst, Massachusetts 01003, USA

ID 592  The Determination of Patient Appointment Scheduling and Patients’ Examination Room Assignment Policies: A Case Study
Ping-Shun Chen, Li-Wen Liu, Ching-Ping Zheng, Department of Industrial and Systems Engineering, Chung Yuan Christian University, Chung Li District, Taoyuan City, Taiwan, ROC
Wen-Tso Huang, Business School, Department of Financial Management, Minnan Normal University, Xiangcheng District, Zhangzhou City, China

8:00 – 9:30, THURSDAY  Healthcare Operations and Services  Room 7
Session Chair: Priya Sachin Deole, G.S. Tompe Art’s, Comm. & Science College, Chandur Bazar, Dist. Amravati (M.S) India

ID 025  Conceptual Framework to Estimate Continuous Improvement Project Success in Hospitals
Fernando Gonzalez-Aleu, Department of Engineering, Universidad de Monterrey, San Pedro Garza Garcia, NL 66238, Mexico
Eileen M. Van Aken, Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, VA 24061, USA
Jennifer Cross, Department of Industrial Engineering, Texas Tech University, Lubbock, TX 79409-3061, USA
Wiljeana Glover, Schlesinger Fund for Global Healthcare Entrepreneurship, Babson College, Babson Park, MA 02457-0310, USA

ID 063  Modelling for Hospital Rating Improvements on Peer Review Sites Considering Region Specific Factors
Mayukh Saha, Dr. Jitendra Kumar Jha and Dr. J Mati, Department of Industrial & Systems Engineering, Indian Institute of Technology, Kharagpur, 721302, India

ID 080  The Improvement of Healthcare Management in Thailand via IE Tools: A Survey
Chawis Boonmee and Chompoonoot Kasemset, Department of Industrial Engineering, Chiang Mai University, Chiang Mai, Thailand

8:00 – 9:30, THURSDAY  Product Design and Development  Room 8
Session Chair: Mahmood Al Kindi, Sultan Qaboos University, Oman

ID 141  How the Difference in Product Characteristics Affects the Relationship with Customers - In the Case of the Electronics Parts Industry Increasing its Focus on the Automotive Market
Chihiro Sato, Graduate School of Economics and Management, Tohoku University, Kawauchi, 27-1, Aoba-ku, Sendai, Miyagi, Japan

ID 256  A New Approach for Classifying Cross-functional Teams in Product Development Projects
Hamdi Basht, Department of Industrial Engineering and Engineering Management, Sustainable Engineering Asset Management (SEAM) Research Group, University of Sharjah, Sharjah, UAE

ID 265  Generalization Model for Product Development Time in various Market Properties
Mahmood Al Kindi, Ahm Shamussuoha and Emin Summad, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Oman

ID 408  Design Optimization of Equipment Controls Setup and Workstation Tables for the Remote Production Taping of a Media Broadcasting Company
Andrate A. Palisoc, Gerald O. Semifrania, Ma. Teodora E. Gutierrez, Yoshiki B. Kurata and Maricar M. Navarro, Department of Industrial Engineering, Technological Institute of the Philippines Quezon City, Philippines

ID 451  Re-Designing a Gear Using Reverse Engineering
Hoor Alhafeiti, Aiman Ziout, Athari Ahsaadiya & Asma Alhebsi, Department of Mechanical Engineering, United Arab Emirates University, Alain, UAE

ID 581  Design and Development of Advanced Air Purifier Facial Mask
Md. Mamunur Rashid and Sadman Sakib Tushan, Department of Industrial & Production Engineering, Bangladesh University of Textiles, Dhaka-1208, Bangladesh

ID 085  Theoretical Framework to Analyze Conflict between Marketing and Operations Strategy: A Product Life Cycle Perspective
Chitresh Kumar and Anirban Ganguly, Jindal Global Business School, O. P. Jindal Global University, Sonipat, Haryana, India

9:40 – 11:00 am – Thursday Morning Keynote I & II
9:40 – 10:20 am - Thursday Morning Keynote I

Dr. Chen-Fu Chien
Tsinghua Chair Professor, Department of Industrial Engineering & Engineering Management
National Tsing Hua University
Convener, Industrial Engineering and Management Program, Ministry of Science & Technology
Director, Artificial Intelligence for Intelligent Manufacturing Systems Research Center
Ministry of Science & Technology
Hsinchu, Taiwan
**Thursday Morning Keynote II**

**Dr. Josu Takala**  
Professor, Industrial Management and Materials Management  
University of Vaasa, Vaasa, Finland

### Session – Thursday (March 7): 11:30 am – 1:00 pm

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>11:30 – 12:00 (Thursday)</td>
<td>Global Engineering Education X</td>
<td></td>
</tr>
</tbody>
</table>
| Dr. Muhammad Hisjam  
Department of Industrial Engineering, Faculty of Engineering  
Universitas Sebelas Maret, Surakarta, Indonesia | 12:00 – 12:30 (Thursday) |        |
| ID 774: Problem Based Learning for Technoeconomic Analysis for Logistics System Course: Case in a State-owned Warehouse | 12:30 – 1:00 (Thursday) |        |
| Muhammad Hisjam, Department of Industrial Engineering, Faculty of Engineering, Universitas Sebelas Maret, Indonesia | Dr. Wahyudi Sutopo  
Associate Professor and Head, Department of Industrial Engineering, Faculty of Engineering  
University of Sebelas Maret, Surakarta, Indonesia |        |
| ID 820: Learning a Supply Chain Management Course by Problem Based Learning: Case Studies in the Newspaper Industry | Dr. Jiří Tupa  
Vice Dean for Faculty Development, Faculty of Electrical Engineering  
University of West Bohemia, Pilsen, Czech Republic |        |

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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>11:30 – 12:00 (Thursday)</td>
<td>PANEL SESSION Quality 4.0</td>
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<tr>
<td>Panel Chair: Mehran Doulatabadi, Meiji University, Tokyo, Japan</td>
<td>Opening Topic: Quality 4.0 – Current trends overview</td>
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</table>
| Dr. Mehran Doulatabadi (Panel Chair)  
Visiting Senior Research Fellow, Meiji University, Tokyo, Japan | Panel Speaker I  
Prof. Dr. Ir. Sha’rI M. Yusof  
Professor in Quality Engineering and Management  
Dean Razak Faculty of Technology and Informatics  
Universiti Teknologi Malaysia |        |
| Panel Speaker II  
Dr. Wasawat Nakkiew  
Assistant Professor and Head of Department Industrial Engineering  
Chiang Mai University, Thailand | Panel Speaker III  
Mr. Tetsuo Hosokawa  
Head of Customer First Center, Customer First Planning Division, Learning Promotion Group  
Ricoh Company, Ltd., Japan |        |
| Panel Speaker III | 12:30 – 1:00 (Thursday) |        |
| Dr. Jiří Tupa  
Department of Industrial Engineering, Faculty of Engineering  
University of West Bohemia, Pilsen, Czech Republic |        |        |

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<th>Time</th>
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<tr>
<td>11:30 – 12:00 (Thursday)</td>
<td>Supply Chain Management (SCM)</td>
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| Session Chair: Abdussalam Shibani, Lecturer in Construction and Project Management, Coventry University, UK | ID 405  
Blood Supply Chain Challenges: Evidence from Indonesia  
Agus Mansur, Iwan Vanany and Niniet Indah Anvritida, Industrial Engineering Dept. Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia |        |
| ID 468  
Implementation of Green Supply Chain Management (GSCM) Practices among Malaysian Smes  
Alina Shamsuddin and Eta Wahab, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia | ID 575  
The Impact of Green Supply Chain Management Practices on Operational Performance and Customer Satisfaction  
H. K. Dilhani Mallikaratha and C. W. Chatthurani Silva, Department of Decision Sciences, University of Sri Jayewardenepura, Gangodawila, Nupegoda, Sri Lanka |        |
| ID 600  
Analysis of New Product Development Strategies between the Green Supply Chain and Non-Green Supply Chain Partners (Case Study: Doosheh Dairy Company)  
Hadi Gholtzadeh and Nikbaksh Javadian, Department of Industrial Engineering Mazandaran University of Science and Technology, Babol, Iran | ID 605  
Assessing the Effects of Sustainability Practices on Product Life Cycle-Clustering Approach  
Abdul Salam Khan, NUST Business School, National University of Sciences and Technology, NUST, Islamabad, Pakistan |        |
| ID 812  
Supply China Finance with Applications of Block Chain  
Kin Keung Lai, International Business School, Shaanxi Normal University, Xian, China | ID 772  
Increasing Productivity and Efficiency for Third Party Logistics Service  
Josephine D. German, Maria Katrina T. Asuncion and Louie E. Pacheco, School of Industrial Eng. and Eng. Management, Mapúa University, Intramuros, Manila, Philippines |        |

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<th>Time</th>
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<tr>
<td>11:30 – 12:00 (Thursday)</td>
<td>Environmental Engineering and Management</td>
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| Session Chair: Ramon Bangun, Retiree from the Ministry of Industry, Republic of Indonesia | ID 157  
Productivity in the Use of Beer Foam  
Gerardo Espinosa Garza, Universidad de Monterrey, Monterrey, Nuevo León, México |        |
| ID 158  
Mercury, Cadmium and Lead Removal by Processed Orange Peel  
Gerardo Espinosa Garza, Universidad de Monterrey, Monterrey, Nuevo León, México | ID 158  
Mercury, Cadmium and Lead Removal by Processed Orange Peel  
Gerardo Espinosa Garza, Universidad de Monterrey, Monterrey, Nuevo León, México |        |
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<td>Location of an Urban Distribution Center based on GHG Emissions</td>
<td>Maha BENNNANI, MGSf, LEPED, Fes, Morocco</td>
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<td>297</td>
<td>Feasibility Analysis of a Reusable Material That Allows Photosynthetically Active Radiation and Avoids High Temperatures in Greenhouses</td>
<td>Gerardo Espinosa Garza, Universidad de Monterrey, Monterrey, Nuevo León, México</td>
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<td>Decontamination of Mercury, Cadmium and Lead</td>
<td>Gerardo Espinosa Garza, Universidad de Monterrey, Monterrey, Nuevo León, México</td>
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<td>516</td>
<td>Multi Agent System for Hospitals</td>
<td>Sheela R Sharma, Rama Medical College, Mandhana, Kanpur, India</td>
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<td>Multi Agent System for Hospitals</td>
<td>Sheela R Sharma, Rama Medical College, Mandhana, Kanpur, India</td>
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<td>500</td>
<td>Estimating people stature based on Hand Length and Width: a case of Omani people</td>
<td>Awadh Al Shehemi, Mohammad Khadem and Sujan Piya, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Oman</td>
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<tr>
<td>518</td>
<td>An Optimization-based Approach Model for the Improvement of the Performance of Emergency Medical Service Ambulances</td>
<td>Rene D. Estember, Ilynnne Geraldine A. Isip, and Ma. Camille C. Misal, School of Industrial Engineering and Eng. Management, Mapua University, Manila, Philippines</td>
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<tr>
<td>099</td>
<td>Assessing Productivity Changes Using the Bootstrapped Malmquist Index: The Case Study of the Iranian Construction Industry</td>
<td>Ali Reza Nabavieh, Kaveh M. Cyrus and Davoud Ghomiamiongobadi, Department of Industrial Engineering and Management Systems, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran</td>
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<tr>
<td>533</td>
<td>Application of ECRS Technique to Reduce Waste in Case of Detergent Packaging Process</td>
<td>Noppadol Sriputtha, Production Engineering Program, Faculty of Engineering, Thai-Nichi Institute of Technology, Bangkok 10250, Thailand</td>
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<td>278</td>
<td>Decentralization of Medical Emergency Service to Minimize Response Time</td>
<td>Mohammad Ismaili Hadiyl Umam and Diva Kumianiungtias, Doctoral Student of Industrial Engineering Dept., Institut Teknologi Sepuluh, Nopemper, Surabaya, Indonesia</td>
</tr>
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<td>517</td>
<td>Implementation of JIT in Sewing Section of a Garment Industry in Bangladesh to Increase Productivity</td>
<td>Israt Parveen, Md. Afz Miah, Md. Sujan Ali, Khandoker Nafis-Ul-Hasan, Md. Moshir Rahman and Md. Iqbal Mahmud, Department of Textile Engineering, Mawlanah Bhashani Science and Technology University, Santos, Tangail-1902, Bangladesh</td>
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### Healthcare Operations and Services

**Room 5**

11:30 – 1:00, THURSDAY

**Session Chair:** Jason Nathanael Chandra, Tarumanagara University, Indonesia

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<td>A Fuzzy AHP Approach to Evaluate Contributing Factors in the Occurrence of Adverse Events in Philippine Hospitals</td>
<td>Jane Frances Cartalla, Kenneth Ayrrand Montoya, Shiela May Suyo and Giselle Joy Esmeria, Industrial Engineering Department, De La Salle, University Manila</td>
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<tr>
<td>280</td>
<td>ERP for Service Sector and Medical Service</td>
<td>Sheela R Sharma, Rama Medical College, Mandhana, Kanpur, India</td>
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<td>281</td>
<td>Multi Agent System for Hospitals</td>
<td>Sheela R Sharma, Rama Medical College, Mandhana, Kanpur, India</td>
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<td>282</td>
<td>Estimating people stature based on Hand Length and Width: a case of Omani people</td>
<td>Awadh Al Shehemi, Mohammad Khadem and Sujan Piya, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Oman</td>
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<td>283</td>
<td>An Optimization-based Approach Model for the Improvement of the Performance of Emergency Medical Service Ambulances</td>
<td>Rene D. Estember, Ilynnne Geraldine A. Isip, and Ma. Camille C. Misal, School of Industrial Engineering and Eng. Management, Mapua University, Manila, Philippines</td>
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### Industrial Management

**Room 6**

11:30 – 1:00, THURSDAY

**Session Chair:** Rahmat Nurcahyo, Universitas Indonesia

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<td>Assessing Productivity Changes Using the Bootstrapped Malmquist Index: The Case Study of the Iranian Construction Industry</td>
<td>Ali Reza Nabavieh, Kaveh M. Cyrus and Davoud Ghomiamiongobadi, Department of Industrial Engineering and Management Systems, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran</td>
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<td>Application of ECRS Technique to Reduce Waste in Case of Detergent Packaging Process</td>
<td>Noppadol Sriputtha, Production Engineering Program, Faculty of Engineering, Thai-Nichi Institute of Technology, Bangkok 10250, Thailand</td>
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<td>Cost Reduction in Case of Forklift's Tire Replacement using VA/VE Technique</td>
<td>Noppadol Sriputtha, Production Engineering Program, Faculty of Engineering, Thai-Nichi Institute of Technology, Bangkok 10250, Thailand</td>
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### Construction Management

**Room 7**

11:30 – 1:00, THURSDAY

**Session Chair:** Yugowati Praharsi, Shipbuilding Institute of Polytechnic Surabaya, Jl. Teknik Kimia, Kampus ITS, Sukolilo, Surabaya, Indonesia

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<td>Impact of Variation Orders Occurrence in Construction: A Case Study of Polokwane, Limpopo Province</td>
<td>Pfumelani Maluleke, Clinton Aigbavboa and Wellington Thwala, Dept. of Construction Management and Quantity Surveying, University of Johannesburg, South Africa</td>
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ID 508  The Identification of Material Management Risk Factors Affecting to the Time Performance in Fly Over Project Construction
Hafnidar A. Rani and Tamalikhani Syamman, Civil Engineering Department, Faculty of Engineering, Universitas Muhammadiah Aceh, Banda Aceh, Aceh, Indonesia

ID 023  Contractors Perception towards Excavation Hazard
Clinton Algavbao and Wellington Didi Thwala, Sustainable Human Settlement and Construction Research Centre, Department of Construction Management & Quantity Surveying, University of Johannesburg, Doornfontein Campus, Johannesburg, 2028, South Africa
Zakri Mustapha, School of Engineering, Department of Building Technology, Cape Coast Technical University, Cape Coast, Ghana

ID 528  Factors Hindering Private Developer in Housing Development in Lagos State
Elizabeth Ojo-Fafore, University of Johannesburg, Department of Construction Management and Quantity Surveying, Johannesburg, South Africa

ID 532  Public Private Partnership (PPP): Strategy for Sustainable Housing
Elizabeth Ojo-Fafore, University of Johannesburg, Department of Construction Management and Quantity Surveying, Johannesburg, South Africa

ID 666  Analysing the Pros and Norms of Outsourcing Logistics Operational Activities in Construction in South Africa
Katlego Letsoko and Xhanti Dyonase, University of Johannesburg, South Africa

11:30 – 1:00, THURSDAY  Waste Management  Room 8

Session Chair: E I Edoun, University of Johannesburg, Auckland Park, South Africa

ID 452  Municipal Solid Waste Collection and Disposal using Traveling Salesman Problem: A Review
EziguwenuOhie and Stephen C. Nwanya, Department of Mechanical Engineering, University of Nigeria Nsukka, Nigeria

ID 543  Strategies to Adopt Zero Waste Concept in the Construction Industry
K.L.A.K.T. Liyanage, K.G.A.S. Waidyasekara and H. Mallawarachchi, Department of Building Economics, University of Moratuwa, Sri Lanka

ID 568  A Reverse Logistics Network Optimization Model for Residual OTR tires from the Mining Industry: A Colombian Case Study
Jorge Oyola and René Amaya-Mier, Department of Industrial Engineering, Universidad del Norte, Barranquilla, Atlántico 081007, Colombia

ID 591  A Study of Food Waste Behaviour in Tertiary Institution
Emy Ezura Bl A. Jall, Technology and Supply Chain Excellence Institute, Universiti Utara Malaysia
Chong Wing Ying, Chang See Min and Loo Mei Chen, School of Technology Management and Logistics, College of Business, Universiti Utara Malaysia, Kedah, Malaysia

ID 596  The Impact of Waste Management in the Hospitality Industry Johannesburg North, South Africa
E I Edoun, Professor C Mbohwa and Thobile Yvonne Bhiha, Faculty of Industrial and the Built Environment, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, South Africa

ID 801  Application of Multi-Criteria Decision Making (MCDM) Tools in Governance Evaluation of Accessible and Inclusive Urban Developments (AIUD)
Amal AlKhams, PhD in Engineering Management Program, University of Sharjah, Sharjah, UAE
Fikri Dweiri, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, UAE
Hasim Altan, Department of Architectural Engineering, University of Sharjah, Sharjah, UAE

ID 663  Advancement of Life Cycle Assessment towards Eco-design in Ceramic Floor Tile Industry in Sri Lanka
Kamalakkannan Sivapprakasam, University of Peradeniya, Faculty of Engineering, Peradeniya, Sri Lanka

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

Session – Thursday (March 7) – 2:30 – 4:00 pm  Global Engineering Education XI  Room 1

Session Chair: Professor Eui H. Park, North Carolina A&T State University, Greensboro, North Carolina, USA

ID 143  An Investigation of Student Perspective for E-Learning Readiness Measurement
Aulia F. Hadining, Sukanta and Wachid Hidayat, Industrial Engineering Department State University of Singaperbangsa Karawang, Karawang, Indonesia

2:30 – 4:00, THURSDAY  Industry Solutions XI  Room 2

Session Chair: Dr. Manoj Soni, Birla Institute of Technology and Science, Pilani, Jhunjhunu, Rajasthan, India

ID 224  Design and Simulation Based Validation of a Reconfigurable Manufacturing System
Bashir Salah, Vice Dean of Advanced Manufacturing Institute and Assistant Professor of Industrial Engineering, King Saud University, KSA
ID 240 Requirement Analysis for SMART Supply Chain Management for SMEs
Post Chaopaisarn, Center of Excellence in Logistics and Supply Chain Management, Chiang Mai University, Chiang Mai, Thailand
Manuel Woschank, Chair of Industrial Logistics, University of Leoben, Austria

3:30 – 3:40 pm, (Thursday) - Room 2
Che Zalina Zukifi, Nursyahida Mohd Noor and Nur Hazlina Abu Hassan
Computing Department, Sultan Idris Education University, Perak, Malaysia

ID 478 Performance Evaluation of Integrated Moisture Sensor with ZigBee Mesh Network for Automated Irrigation System
Che Zalina Zukifi, Nursyahida Mohd Noor and Nur Hazlina Abu Hassan, Computing Department, Sultan Idris Education University, Perak, Malaysia

2:30 – 4:00, THURSDAY Supply Chain Management (SCM) Room 3
Session Chair: Emy Euzura Bt. A. Jaili, Universiti Utara Malaysia

ID 011 Anaerobic Digestion of Kitchen and Sewage Sludge Bio waste to Biogas using Engineered Bio catalysis
M. M. Manyuchi, BioEnergy and Environmental Technology Centre, Department of Operations and Quality Management, University of Johannesburg, South Africa
C. Mbohwa, BioEnergy and Environmental Technology Centre, Department of Operations and Quality Management, University of Johannesburg, South Africa
M. Mpeta, Department of Environmental Engineering, Faculty of Engineering, Chinhoyi University of Technology, Zimbabwe
E. Muzenda, BioEnergy and Environmental Technology Centre, Faculty of Eng. and the Built Environment, University of Johannesburg, South Africa
Department of Chemical, Materials and Metallurgical Engineering, Botswana International University of Science and Technology, P Bag 16, Palapye, Botswana

ID 014 Environmental Impacts for Setting up a Waste to Energy Landfill Site
M. M. Manyuchi, BioEnergy and Environmental Technology Centre, Department of Operations and Quality Management, University of Johannesburg, South Africa
C. Mbohwa, BioEnergy and Environmental Technology Centre, Department of Operations and Quality Management, University of Johannesburg, South Africa
M. Mpeta, Department of Environmental Engineering, Faculty of Engineering, Chinhoyi University of Technology, Zimbabwe
E. Muzenda, BioEnergy and Environmental Technology Centre, Faculty of Eng. and the Built Environment, University of Johannesburg, South Africa
Department of Chemical, Materials and Metallurgical Engineering, Botswana International University of Science and Technology, P Bag 16, Palapye, Botswana

ID 552 Development of Supply Chain Model for Small Scale FarmerProducers of the Carrageenan Industry in the Philippines
Mary Christy O. Mendoza and Raphael Joesh P. Layug, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila

ID 558 Factors Affecting the Performance of Cold Chain for Export of Thailand's Longan
Narathip Titlo, Graduate program in Logistics Engineering and Supply chain Management, Dept. of Industrial Engineering, Chiang Mai University, Chiang Mai, Thailand
Apichart Sopadang, Department of Industrial Engineering, Excellence Center in Logistics and Supply Chain Management, Chiang Mai University, Chiang Mai, Thailand

ID 561 Integration of Contract and Spot Market Carrier under Demand Uncertainty
Lala Ayu Kantari, I Nyoman Pujawan and Niniet Indah Avritida, Department of Industrial Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 565 An Assessment for the Use of Green Building Information Modelling for Sustainable and Green Buildings – Sri Lankan Perspective
H.W.T. P. Rathnasiri and H.S. Jayasena, Department of Building Economics, University of Moratuwa, Sri Lanka

2:30 – 4:00, THURSDAY Operations Research Room 4
Session Chair: Md. Iqbal Mahmud, Mawlana Bhashani Science and Technology University, Santosh, Tangail-1902, Bangladesh

ID 338 A Formulation of Priority – Based Financial Allocation Model for Student Development Activities in SPED Centers
Jenahy Shigelia G. Yandug and Pheebe Lie T. Dionisio, School of Industrial Engineering and Engineering Management, Mapua University, Intramuros, Manila

ID 480 Incorporating Dynamic Potential market in Innovation Diffusion Model Using Stochastic Differential Equation
Kuldeep Chaudhary and Pradeep Kumar, Department of Applied Mathematics, Amity Institute of Applied Sciences, Noida, India
Sunita Mehta, Department of Mathematics, Kalindi College, University of Delhi, India

ID 535 An Interpretive Structural Model for Analyzing the Impact of Sustainability Driven Supply Chain Strategies
Jyoti Darbari, Rahul Solanki, Vernika Agarwal and P.C. Jha, Department of Operational Research, University Of Delhi, Delhi

ID 594 DEA-Cross Efficiency Approach for Peer Assessment of Retail Stores’ Efficiency
Nomita Pachar and P C Jha, Department of Operational Research, University of Delhi, Delhi, India
Anshu Gupta, University School of Management and Entrepreneurship (USME), East Delhi Campus, Delhi Technological University, Delhi, India

ID 679 Minimizing Mean Weighted Expected Tardiness by Integrating Preventive Maintenance and Production Scheduling Using Genetic Algorithm
Sumitharni Batubara, Iveline Anne Marie and Cattelya F.H, Industrial Engineering Dept., Faculty of Industrial Technology, Trisakti University, Jakarta Barat, Indonesia

2:30 – 4:00, THURSDAY Environmental Engineering and Management Room 5
Session Chair: Pratik Mukesh, PDPDM, IIITDM, Jabalpur, India

ID 320 Aggregated Metrics to Assess Fuel Consumption in Freight Fleets
Jenny Diaz Ramirez, Department of Engineering, Universidad de Monterrey, Monterrey, N.L. 66238, Mexico
José Ignacio Huertas, Energy and Climate Change Research Group, School of Engineering and Science, Tecnológico de Monterrey, Monterrey, N.L., 68849, Mexico
Nicolas Giraldo Peralta, Mechanical, Electromechanical, and Biomedical Department, Universidad Antonio Nariño, Bogota, D.C., Colombia

ID 466 Development of Post-Consumer Polymer Suppliers
Andrés R. Cruz Herrera, Jeanette del P. Ureña Aguirre & Leandro L. Lorente Leyva, Facultad de Ingenieria en Ciencias Aplicadas, Univ. Técnica del Norte, Ibarra, Ecuador

ID 529 Environmental Issues in Construction Industry
Elizabeth Ojo-Fafaro, Clinton Agbagbvo and Wellington Thwala, Department of Construction Management and Quantity Surveying, University of Johannesburg, South Africa

ID 546 Waste Plastic Material as an Additional Material for Hollow Foundation Test Concrete
Sri Wiwoho Mudjanarko and Prastyo Adi Putro, Department of Civil Engineering, Universitas Narotama, Surabaya, Indonesia
Eko Juliarto, Politeknik Perkapalan Negeri Surabaya, Surabaya, Indonesia

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ID 677 Management of Waste Water in Meat Processing Sector: Case Study of Ekurhuleni Abattoir in Johannesburg
Victor Msamango¹, Paul Amaechi Ozor² and Charles Mbohwa²
¹Department of Mechanical Engineering, Faculty of Engineering and Technology, University of Johannesburg, South Africa
²Department of Mechanical Engineering, Faculty of Engineering, University of Nigeria Nsukka, Nigeria

ID 807 Handling Heavy Metal Waste through Utilization of Lapindo Activated Mud HCl to Realize Environmentally Friendly Industries
Sigit Trimayanto and Sari Edi Cahyaningrum, Department of Environmental Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

ID 909 Formulation of a Remover to Eliminate Paint in Articles Made of Glass
Gerardo Espinosa and Jacobo Tijerina, Universidad de Monterrey, Mexico

ID 621 The Essence of Total Quality Management Philosophies in Business
Sibongile Chauke, El Edoun and Mbohwa, Department of Building Economics, University of Moratuwa, Sri Lanka

ID 643 Performance Assessment of Hardboard Material’s Supplier in PT. Nutech Pundi Artha using Analytic Network Process (ANP) Methods
Muhammad Kholl, Hendri and Farah Devina, Program Studi Teknik Industri, Fakultas Teknik, Universitas Mercu Buana, Jakarta Barat, Indonesia

ID 630 Identification of Opinion Leadership: A Literature Review
L.M.B.N. Kolugala and H.S. Jayasena, Department of Building Economics, University of Moratuwa, Sri Lanka

ID 412 Statistical Analysis in Measuring Employee Performance at Department Store
Ahmad Syarif Hidayah, Agus Sukoco, Eloke Damayanti, Arasy Alimudin, M. Ikhsan Setiawan and Sriwijwoh Mudjanarko, Faculty of Economy and Business, Narotama University, Surabaya, Indonesia

ID 415 Analysis of the Efficiency of Company’s Strategy by Dismissing Employees and Replacing Them with the Home Industry
Arasy Alimudin, Agus Sukoco, Eloke Damayanti, Rony Wardhana and Ibu Farid, Faculty of Economy and Business, Narotama University, Surabaya, Indonesia

ID 668 Formulating a Strategic Management of Social E-Commerce through a Combination of SWOT and PESTLE Analysis: Case Study
Abel Kristanto Widodo, Widhiyaningrum, Moh Rizal Tahqi and A.A.S. Manik Mahachandra, Diponegoro University, Semarang, Indonesia

ID 791 Categorization of Shopping Centres in Malaysia: A Criteria-Based Delphi Study
Ifhasuziella Ibrahim¹, Abdul Talib Bon², Abdul Hadi Nawawi¹ and Edie Ezwan Mohd Safian²
¹Faculty of Architecture, Planning and Surveying, UTM, 40450 Shah Alam, Malaysia
²Faculty of Technology Management & Business, UTHM, 86400 Johor, Malaysia

ID 345 Using a Safety Culture Assessment of Multinational Oil/Gas Companies to Improve Safety Performance in Saudi Arabia
Saleh Al Sulaihe and E.H. Park, Department of Industrial & Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA

ID 235 Development of an Online Blood Management System
Subrata Talapatra, Assistant Professor, Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna, Bangladesh

ID 236 A Train Cabin Design for Persons with Mobility Impairment and Special Needs: An Ergonomic Intervention
Ma. Janice J. Gumasing, Marion Ollie V. Zerrudo and Josephine D. German, School of Industrial Engineering and Management, Mapua University, Philippines

ID 789 Study of Ergonomics and Noise Hazard at Wood Based Furniture Industry
Aung Seni Anak Ayak, Jafri Mohd Rohani and Khidzir Zakaria, School of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor Bahru, Malaysia

ID 345 Using a Safety Culture Assessment of Multinational Oil/Gas Companies to Improve Safety Performance in Saudi Arabia
M.K. Bajwa and E.H. Park, Department of Industrial & Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA

ID 414 Analysis of Employee Performance at Department Store
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ID 345 Using a Safety Culture Assessment of Multinational Oil/Gas Companies to Improve Safety Performance in Saudi Arabia
M.K. Bajwa and E.H. Park, Department of Industrial & Systems Engineering, North Carolina A&T State University, Greensboro, NC, USA
ID 539  Analysis Students Abilities in Completing Mathematical Problems Dimension Three in Junior High School
Rahmi Wiganda Elastika, Master Program in Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Zulkarnain, Mefa Indriati and Sukono, Dept. of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia
Subiyanto, Department of Marine Sciences, Faculty of Fishery and Marine Sciences, Universitas Padjadjaran, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 458  Work Organization through Methods Engineering and Time Study to Increase Productivity in a Floriculture Company: A Case Study
Carlos A. Machado Orges, Leandro L. Lorente Leyva and Juan C. Migmal Iles, Facultad de Ingeniería en Ciencias Aplicadas, Univ. Técnica del Norte, Ibarra, Ecuador
Juan P. Tafur Guisao, Escuela de Ciencias Químicas e Ingeniería, Universidad Yachay Tech, Urcuqui, Ecuador
Ivet Challenger Pérez, Facultad de Ingeniería Informática y Matemática, Universidad de Holguín, Cuba

ID 654  Optimization Model to Enhance the Petroleum Distribution Network in Sri Lanka
W.W.N. Sachini, W.M.S.K. Weerabahu and R. Wickramarchchi, Department of Industrial Management, University of Kelaniya, Sri Lanka

ID 665  Big Data Tasks Execution Time Analysis Using Machine Learning Techniques
Aisha Shabhir, Kamalrajunizam Abu Bakar, Raja Zahlah Raja Mohd. Radzi and Muhammad Siraj, University Technology Malaysia, Skudai, Malaysia

ID 566  Service Quality Improvement in Courier Service: Need for Lean Principles
N. Botsane, P.A. Ozor & Charles Mbohwa, Dept. of Quality and Operations Management, Faculty of Eng. & the Built Environment, University of Johannesburg, South Africa

4:00 – 4:30 pm – Networking Break

Session – Thursday (March 7) – 4:30 – 6:00 pm

4:30 – 6:00, THURSDAY  Global Engineering Education XII  Room 1
Session Chair: Manohar Madan, University of Wisconsin-Whitewater, WI, USA

4:30 – 5:00 (Thursday)
Denchai Woradechjumroen, Ph. D.
Head and Founder of Intelligent Building Collaboration (IBC) Research Unit
Kx Knowledge Exchange - KMUTT
Lecturer at Sripatum University, Thailand
Work integrated learning (WIL) under smart building technology collaboration from a research group to startup companies

5:00 – 5:30 (Thursday)
Dr. Manoj Soni
Associate Professor
Birla Institute of Technology and Science
Pilani, Jhunjhunu
Rajasthan, India

5:30 – 6:00 (Thursday)
Kingsley Gnanendran
OIM Department
The University of Scranton, Scranton, PA 18510, USA
Manohar Madan
ITSCM Department
University of Wisconsin-Whitewater, Whitewater, WI 53190, USA

ID 674  Heuristics for Course Planning in Degree Programs
Kingsley Gnanendran, University of Scranton, United States
Manohar Madan, University of Wisconsin-Whitewater, United States

4:30 – 6:30, THURSDAY  Industry Solutions XII  Room 2
Session Chair: Lawrance Seseni, University of Johannesburg, South Africa

4:30 – 5:00 (Thursday)
Mohd Norzaimi Che Ani
Lecturer of Manufacturing Section, Malaysian Spanish Institute
Universiti Kuala Lumpur, Malaysia

ID 392  Streamlining the Flow of Production System through Elimination the Waste of the Overburden (Muri) for Manual Handling Process
Mohd Norzaimi Che Ani, Manufacturing Engineering Section, Universiti Kuala Lumpur – Malaysian Spanish Institute, Kedah, Malaysia
Shahrul Kamaruddin, Mechanical and Industrial Engineering Department, Universiti Teknologi Petronas, Perak, Malaysia
Ishak Abdul Azid, Mechanical Engineering Section, Universiti Kuala Lumpur – Malaysian Spanish Institute, Kedah, Malaysia
5:00 – 5:30 (Thursday)
Benmounah Amar
Department of Transport and Equipment of Hydrocarbons
University Mhamed Bougara, Boumerdas, Algeria

ID 475  Influence of the Type of Pipeline Integrity Assessment on the Effectiveness of Repairs
Benmounah Amar, Department of Transport and Equipment of Hydrocarbons, University Mhamed Bougara Boumerdas 35000. Algeria
5:30 – 6:00 (Thursday)

Mr. Lawrance Seseni
Lecturer, Department of Business Management, Centre of Small Business Development (CSBD), University of Johannesburg, South Africa

ID 639  SMEs Managing Organisational Knowledge in the 4IR Era: A Case Study of Developing Countries
Lawrance Seseni and Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, RSA

4:30 – 6:00, THURSDAY  Inventory Control  Room 3
Session Chair: Kalluri Vinayak, School of Engineering & Technology, BML Munjal University, Gurgaon, Haryana, India

ID 110  Managing Production and Sales of Refurbished Products under Capacity Limitations
Mayukh Saha, Vaibhav Agrawal and Dr. Akhilesh Kumar, Dept. of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India
ID 335  A Multi-Item Inventory Control Model Using Multi-Objective Particle Swarm Optimization (MOPSO)
Ferdous Sarwar, Mahjabin Rahman and Mushaer Ahmed, Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

ID 359  The Analysis of Inventory Control of Head Truck Spare Parts with Continuous Review Policy in Container Terminal Company
Yugowati Praharssi and Eko Julianto, Shipbuilding Institute of Polytechnic Surabaya, Jl. Teknik Kimia, Campus ITS, Sukolilo, Surabaya, Indonesia
Hui-Ming Wee, Department of Industrial and System Engineering, Chung Yuan Christian University, Chungli City, Taiwan

ID 201  Creation of a RFID to Improve Productivity and Inventory Control
Imelda Loera Hernandez and Natella Anttonyan, Tecnologico de Monterrey, Monterrey, Nuevo Leon, Mexico
Gerardo Espinosa Garza and Jacobo Tijerina Aguilara, Universidad de Monterrey, San Pedro Garza Garcia, Nuevo Leon, Mexico

4:30 – 6:30, THURSDAY  Decision Sciences  Room 4
Session Chair: Josephine D. German, School of Industrial Engineering and Engineering Management, Mapua University, Philippines

ID 619  The Effectiveness of Total Quality Management and Operations Performance at a Bakery Firm in The City of Tshwane, Pretoria South Africa
Syria Sibongile Chauke, EI Edoun and Charles Mbohwa, Quality and Operations Management, University of Johannesburg, RSA

ID 638  Competency Mapping for Managers in Governmental Organizations by Shannon Entropy
Arafaa Namvar, M.Sc. Construction engineering and management, Amir Kabir University, Tehran, Iran
Ali Maleki, M.Sc. Industrial Engineering, Amir Kabir University, Tehran, Iran
Farid Saeedi, M.Sc. Industrial Management, Persian Gulf University, Bushehr, Iran

ID 535  The Completeness of p-Summable Sequences as 2-Normed Spaces
Muhammad Ryan Sanusi, Master Program in Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung, Indonesia
Snelvi Ekariani and Sukono, Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Bandung, Indonesia
Abdul Talib Bon, Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia

ID 618  Relief Demand Modeling Using Bayesian Approach to Coordinate Humanitarian Logistics Planning
Muhammad Anwar Rahman, Central Connecticut State University, New Britain, Connecticut, USA

ID 644  Production System Disturbances of Heavy Equipment Component Industry (Case Study at PT ABC)
Iveline Anne Marie, Pudji Astuti and Debbie Kemala Sari, Industrial Engineering Department, Faculty of Industrial Technology, Trisakti University
Kampus, Jakarta Barat, Indonesia

Mohd Effendi Amran and Habibah @ Norehan Binti Haron, Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

4:30 – 6:30, THURSDAY  Information Systems and Information Technology  Room 5
Session Chair: Grace Lorraine D. Intal, Mapua University, Muralia St., Intramuros Manila, Philippines

ID 573  Combining SWOT and PESTLE Model to Assess Kaskus Business Model
Withyaningrum, Abell Kristanto Widodo, Moh. Rizal Tahiqqi, A.A.S. Manik and Mahachandra J.M., Departement of Industrial Engineering, Faculty of Engineering, Diponegoro University

ID 523  Strategy for Developing MSMEs Performance Using Balanced Scorecard Model Measurement based on Information Technology
Arya Alimun and Elok Damayanti, Department of Management, Narotama University, Surabaya, East Java, Indonesia
Abdul Talib Bon, Department of Production and Operation Management, Universiti Tun Hussein Onn, Part Raja, Johor, Malaysia

ID 635  Conceptual Facebook Model to Mitigate the Problem of Obesity among Sudanese Females
Ghada Ahmad Abdelglooum, Information System Dept., Faculty Computing, UTM
Haitham A. Jamil, Faculty of Computer Science and Information Technology, University of El Tamim El Mahadi, Kosti, White Nile, Sudan

ID 650  Big Data Issues and Processing Techniques: A Comprehensive Survey
Aisha Shabbir, Kamalurruzam Abu Bakar, Raja Zahalah Raja Mohd. Radzi and Sulaiman Azeem, University Technology Malaysia

ID 764  Design and Development of a Decision Support System with Visual Analytics to Improve MRT Maintenance Operations
Grace Lorraine D. Intal, Thea Marie C. Gomez, Alison Vince T. Cadorniga and Jeongwong Kang, School of Information Technology, Mapua University, Muralia St., Intramuros Manila, Philippines

ID 767  Information Security for Hospital Information System Using COBIT 5 Framework
Khilda Nistrina and Abdul Talib Bin Bon, Faculty of Technology Management and Business, University Tun Hussein Onn Malaysia

ID 829  CSR and Social Media Analytics in India
Arya Sree and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India

4:30 – 6:00, THURSDAY  Cybersecurity and AI  Room 6
Session Chair: Kuldeep Chaudhary Amity Institute of Applied Sciences, Amity University, Noida, India

ID 287  Network Security Analysis using Markov Models
Shwetank Sharan, Manish Agrawal and Anubhav Shukla, Department of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, India

ID 362  Privacy and Security aware Cryptographic Algorithm for Secure Cloud Data Storage
B. Muthulakshmi, Department of Computer Applications, Kalasalingam Academy of Research and Education, Anand Nagar, Krishnankoil
M.Venkatesulu, Department of Information Technology, Kalasalingam Academy of Research and Education, Anand Nagar, Krishnankoil

ID 089  DeepFork: Supervised Prediction of Information Diffusion in GitHub
Ramya Akula, Niloofar Yousefi and Ivan Garibay, Industrial Engineering and Management Systems, University of Central Florida, Orlando, USA
Abroo Murtaza, Foundation University Rawalpindi Campus, Pakistan

ID 782  Enhancing Firm Performance through Human Resource Management (HRM) Practices and HR Roles
Ivana Chandra Voo and Khairiah Soehod, Azman Hashim International Business School, Universiti Teknologi Malaysia, Johor Bahru, Malaysia
Choi Sang Long, Faculty of Business, Raffles University Iskandar, Johor Bahru, Johor, Malaysia
Mehran Doulatabadi, Graduate School of Business Administration, Meiji University, Tokyo, Japan

ID 783  Impact of Exploitative Leadership on Employee Outcomes and Moderating Role of Narcissism
Irfan Sakhawat, Asma Gul and Abroo Murtaza, Riphah International University Islamabad, Pakistan

ID 786  Design of an Automated Millet Milling Machine
Kudzaishe L Mudzingwa and Tawanda Mushiri, Dept. of Mechanical Engineering, University of Zimbabwe, Mount Pleasant, Harare, Zimbabwe

ID 831  Healthcare Social Factors of Companies in India
Amritha M Nair and Shekar Babu, Department of Management, Amrita Vishwa Vidyapeetham University, Bangalore, India
Distinguished Speakers – Industry Solutions

Tuesday, March 5, 2019

Session I: Industry Solutions - 8:00 – 9:30 am (Tuesday) – Room 2
Session Chair: Patrick Dallasega, Free University of Bozen-Bolzano, Bolzano, Italy

8:00 – 8:30 (Tuesday) – Room 2

Dr. Apichat Sopadang
Associate Professor, Department of Industrial Engineering
Head of Excellence Center in Logistics and Supply Chain Management (E-LSCM)
Chiang Mai University, Thailand

Apichat Sopadang is an Associate Professor in the Department of Industrial Engineering and a head of Excellence Center in Logistics and Supply Chain Management (E-LSCM). He graduated with a degree in the industrial engineer from Chiang Mai University, Thailand in 1987 and holds a Ph.D. from the Clemson University, the USA in 2001. His research interests focus on supply chain and logistics management, and multiple criteria decision-making. He currently work on an Associate Dean at the Graduate School, Chiang Mai University, Thailand.

ID 097 The Development of the Maturity Model to evaluate the Smart SMEs 4.0 Readiness
Apichat Sopadang and Nilubon Chonsawat, Chiang Mai University, Thailand

8:30 – 9:00 (Tuesday) – Room 2

Maria Teresa Ribeiro Pereira
Fulltime Associate Professor and Coordinator of the CIDEM, research center of mechanical engineering
Sub-Director of the master course of Mechanical Engineering- branch Industrial management and of the master course of Industrial engineering & management of ISEP

Maria Teresa Ribeiro Pereira is currently a fulltime associate professor and Coordinator of the CIDEM, research center of mechanical engineering. She is sub-director of the master course of Mechanical Engineering- branch Industrial management and of the master course of Industrial engineering & management of ISEP. She holds a Production Management Engineering degree from Minho University, a Master course in Information Management from Sheffield University and a PhD. In Operational Management from Minho University. She worked 8 years in the industry and has a 26 years’ experience teaching being Professor of Operational Research, Decision Support models, Operations Research, Logistics, Supply Chain Management, Transportation in several courses of IPP. She Guided/guides more than 20 masters' theses, and participated in several projects/researches, and national and international projects with companies, which resulted in several publications/communications.

ID 173 Information Systems for Industrial processes support and optimization
Maria Teresa Ribeiro Pereira, CIDEM, Research Center of Mechanical Engineering, ISEP, Portugal
Fernanda A. Ferreira, Department of Mathematics, School of Hospitality and Tourism, Polytechnic Institute of Porto, Portugal
André Silva, Researcher, Mechanical Engineering- branch Industrial management of ISEP, Portugal

9:00 – 9:30 (Tuesday) – Room 2

Dr. Patrick Dallasega
Assistant Professor of Project Management and Industrial Plants Design
Faculty of Science and Technology, Free University of Bolzano (Italy)

Patrick Dallasega is an Assistant Professor of Project Management and Industrial Plants Design at the Faculty of Science and Technology of the Free University of Bolzano (Italy). He studied at the Free University of Bolzano (Italy), at the Polytechnic University of Turin (Italy) and got his PhD at the University of Stuttgart (Germany). He was Visiting Scholar at the Excellence Center in Logistics and Supply Chain Management Chiang Mai University (Thailand) and at the Worcester Polytechnic Institute in Massachusetts (USA). His main research interests are in, supply chain management, Industry 4.0, lean construction, lean manufacturing and production planning and control in MTO and ETO enterprises.

ID 241 Field study to identify requirements for smart logistics of European, US and Asian SMEs
Patrick Dallasega, Free University of Bolzano, Italy
Manuel Woschank, Department of Economic and Business Management, University of Leoben, Austria
Sakgasem Ramingwong, Korraat K. Tippayawong and Nilubon Chonsawat, Industrial Engineering, Chiang Mai University, Thailand
Dr. Sung-Ho Kim
Adjunct Professor of Health Administration, Yonsei University, South Korea and Visiting Professor - St. Louis University

Sung-Ho Kim is an adjunct professor of Health Administration at Yonsei University and researched at St. Louis University as a visiting professor. He earned his Ph.D. at Yonsei University. He is member of directorial board, at Korean Society of Hospital Management, Korean Academy of Health Policy and Management. His recent publications include "Healthcare Supply Chain Management; Strategic Areas for Quality and Financial Improvement", published at Technological Forecasting & Social Change. "The Study of Healthcare Supply Chain Management in United State for Justifying Strategical Implementation," published at Korea Journal of Hospital Management and "The Organizational Citizenship Behavior and Organizational Effectiveness of Hospital Employees" at Korean Journal of Health Policy and Administration.

Dr. Ik-Whan G. Kwon
Professor Emeritus of Operation Management
Director Emeritus of Center for Supply Chain Management Studies
Saint Louis University, USA


Session III: Panel Session on ISO and Industry Certification in Sustaining Operational Improvement
2:30 pm – 4:00 pm (Tuesday) – Room 2

Opening Topic: ISO Certification - Issues and Recommendation for Future Research
Dr. Edly Ferdin Ramly (Panel Chair)
Certification Director
EFR Certification, Johor Bahru, Malaysia

Presently Dr. Edly Ramly is Certification Director and Lead Auditor for various certification schemes including ISO/TS16949. Apart from auditing, he is currently Business Excellence Assessor, Exemplar Global Lead Auditor trainers for Quality (ISO9001 and IATF16949), Environment (ISO14001) and Safety (ISO45001) management system. Dr. Ramly actively conducting research, consultation and trainings to local and multi-national companies that seek operational improvement and breakthrough. 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 training in the area of Lean and Six-Sigma implementation. Dr. Ramly graduated from University of Bradford, UK with Bachelor Degree in Manufacturing System with Management. He then furthered his studies at Sheffield Hallam University, UK and awarded with a Master Degree of Science in Engineering with Management and Ph.D. from Universiti Tun Hussein Onn, Malaysia.

Panel Speaker I: Certification Body Roles - The International Automotive Task Force Model
Mr. Hood Alan
Exergy Management Consultant
IATF Auditor for Afnor Certification, France

Mr. Hood Alan graduated from University of Technology Malaysia with Bachelor in Mechanical Engineering. He then furthered his studies at University of Technology Malaysia for Master in Engineering-Industrial Engineering and Doctor of Philosophy: Industrial Engineering and Operations Management. Hood has been actively involved in the field of Continual Improvement activities since the beginning of his tertiary education. Having worked as a Quality Engineer, Quality Manager, Quality and Environmental Management Representative for numerous years from bottom, middle and to top management, Mr Hood brings along with him a wealth of regional knowledge and experience to share. With his more than 16 years’ experience in Quality and Business Management System, he has conducted various training and workshop in the area of workplace improvement, QS-9000 and 7 packs standard requirements, ISO/TS 16949 standard, variation and waste reduction, and practical problem-solving techniques including statistical tools. His industrial experience was in the automotive industry. During his stayed with the TRW Automotive and previous company, he was tasked with the responsibility of promoting and implementing VDA 6.3, QS-9000, IATF 16949, ISO14001 ISO 13485, EN16001, ISO 50001, OSHAS 18001 & ISO 45001 management system and Lean & Six Sigma within the Organization.
Besides, he also responsible for supplier audit either local or oversea such as Vietnam, Thailand, Singapore, Indonesia, China and India. Presently Mr. Hood Atan is a full time trainer, auditor and management consultant in the fields of Quality, Health & Safety, Energy and Environmental Management system.

Panel Speaker II: Convergence of ISO9001 and Business Excellence Framework

Assoc. Prof. Ts. Dr. Musli Mohammad
Department of Manufacturing and Industrial Engineering
University Tun Hussein Onn, Malaysia

Dr. Musli Mohammad is an Associate Professor at the Department of Manufacturing and Industrial Engineering, Universiti Tun Hussein Onn Malaysia (UTHM), Batu Pahat, Johor. He is also a Director at the Continuing Education Center, UTHM. Before joining UTHM in 2003, he worked as a Total Quality Management Executive at the UMW Toyota Motor Sdn. Bhd. Dr. Musli graduated with a Bachelor of Engineering in Mechanical (Industrial), a Master of Science in Industrial and Systems Engineering, and a Doctor of Philosophy in Engineering and Industrial Management (Massey University, New Zealand). He has more than 15 years of experience related to Industrial Engineering and Operations Management. He is a certified ISO9001:2015 Quality Management System Lead Auditor. He was listed in the Directory of Productivity Champion 2015 and 2016, which was published by Malaysia Productivity Corporation. He was assigned as a Resource Person for Training of Trainers on Business Excellence by Asian Productivity Organization (APO) in 2016. He was appointed as an Expert for APO project to develop a toolkit on Business Excellence for Asian SMEs in 2011. He was involved as a researcher for a global study on quality / business excellence awards in 2010, which was commissioned by the Baldridge Performance Excellence Program, USA.

Panel Speaker III: Challenge in certification process for Food Industries

Mr. Soffian Osman
Safety Academy Malaysia
Snr. Operation Manager

Mr. Soffian graduated from Universiti Malaysia Sabah (UMS) in Bachelor of Food Science & Nutrition with Honors. At the same time, he also holds an Executive Diploma in Occupational Safety & Health. He is a certified trainer and assessor by various agencies such as Ministry of Health Malaysia, Human Resource Development Fund Malaysia, American Heart Association, Rescue Medical Corporation. He was assigned as a Resource Person for Training of Trainers on Business Excellence by Asian Productivity Organisation (APO) in 2016. He was appointed as an Expert for APO project to develop a toolkit on Business Excellence for Asian SMEs in 2011. He was involved as a researcher for a global study on quality / business excellence awards in 2010, which was commissioned by the Baldridge Performance Excellence Program, USA.

Session IV: Industry Solutions - 4:30 pm – 6:00 pm (Tuesday) – Room 2

Session Chair: Dr. Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia

4:30 – 5:00 (Tuesday) – Room 2

Patrick Dallasega
Assistant Professor of Supply Chain Management and Industrial Plants Design
Faculty of Science and Technology
Free University of Bolzano (Italy)

Patrick Dallasega is an Assistant Professor of Supply Chain Management and Industrial Plants Design at the Faculty of Science and Technology of the Free University of Bolzano (Italy). He studied at the Free University of Bolzano (Italy), at the Polytechnic University of Turin (Italy) and got his PhD at the University of Stuttgart (Germany). He was Visiting Scholar at the Excellence Center in Logistics and Supply Chain Management Chiang Mai University (Thailand). His main research interests are in lean construction, supply chain management, Industry 4.0, lean manufacturing and production planning and control in MTO and ETO enterprises.

Dr. Dominik T. Matt
Full Professor for Manufacturing Technology and Systems, Free University of Bolzano
Head of the Industrial Engineering and Automation (IEA) research group

Dominik T. Matt is a Full Professor for Manufacturing Technology and Systems at the Free University of Bolzano and Head of the Industrial Engineering and Automation (IEA) research group. He is also Head of Fraunhofer Italia IEC (Innovation Engineering Center) in Bolzano/Italy. He studied Mechanical Engineering at the Technical University of Munich (TUM) and achieved a Ph.D. in Industrial Engineering at the Karlsruhe Institute of Technology (KIT). From 1998 he worked as research project manager for a US company and for the BMW Group in Munich. In 2004, he was appointed to the post of a Professor for Manufacturing Systems and Technology at the Polytechnic University of Turin, Italy. In 2008, he accepted a call of the Free University of Bolzano. Since 2010, Professor Matt holds the Chair of Manufacturing Engineering at the Free University of Bozen-Bolzano and is the Head of Fraunhofer Italia IEC. He is member in national and international scientific organizations and published more than 100 papers and book contributions.

ID 296 Suitability of Industry 4.0 Concepts for Small and Medium Sized Enterprises: Comparison between an Expert Survey and a User Survey
Erwin Rauch, Patrick Dallasega and Dominik T. Matt, Free University of Bolzano, Italy

5:00 – 5:30 (Tuesday) – Room 2

Chawalit Jeenanunta, Ph.D.
Associate Professor and Deputy Director for Building, Ground and Properties
Head of Logistics and Supply Chain Systems Engineering Research Unit and Center for Demonstration and Technology Transfer of Industry 4.0 (LogEn i4.0)
Srinindhorn International Institute of Technology
Thammasat University
Bangkadi Muang, Pathumthani, Thailand
K Subash Nirmal, Prince Agarwal and K Nageswara Reddy, Dep t. of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

ID 342 Early Detection of Equipment Failure using One-class Support Vector Machine
K Subash Nirmal, Prince Agarwal and K Nageswara Reddy, Dept. of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

Wednesday, March 6, 2019

Session V: Industry Solutions - 8:00 am – 9:30 am (Wednesday) – Room 2
Session Chair: Hermanto Dwiatmoko, University of Mercu Buana, Jakarta, Indonesia

8:00 – 8:20 (Wednesday) – Room 2

Dr. Ruwan Wickramarachchi
Senior Lecturer and Head
Department of Industrial Management
University of Kelaniya, Sri Lanka

Dr. Ruwan Wickramarachchi is a Senior lecturer and the head of the Department of Industrial Management, University of Kelaniya. He holds BSc in Industrial Management from the University of Kelaniya and MPhil in Management studies (specialized in Information systems) from the University of Cambridge, United Kingdom. He received his PhD in distributed simulation from the Sheffield Hallam University, United Kingdom.

ID 274 A Study of the Implications of Logistics 4.0 in Future Warehousing: A Sri Lankan Perspective
Navodika Karunarathna, Navodika Karunarathna and Kasuni Vidanagamachchi, Dep. of Industrial Management, University of Kelaniya, Sri Lanka

8:40 – 9:00 (Wednesday) – Room 2

K Subash Nirmal
Department of Industrial and Systems Engineering
Indian Institute of Technology, Kharagpur, West Bengal, India

ID 342 Early Detection of Equipment Failure using One-class Support Vector Machine
K Subash Nirmal, Prince Agarwal and K Nageswara Reddy, Dept. of Industrial and Systems Engineering, Indian Institute of Technology, Kharagpur, West Bengal, India

9:00 – 9:20 (Wednesday) – Room 2

Hermanto Dwiatmoko
Lecturer
Faculty of Engineering
University of Mercu Buana
Jakarta Indonesia

Hermanto Dwiatmoko is a Lecturer in Faculty of Engineering, University of Mercu Buana, Jakarta Indonesia. Hermanto Dwiatmoko holds a Bachelor of Mechanical Engineering and Master of Transportation in Institut Teknologi Bandung (ITB) and Doctor of Applied Economics in University of Padjadjaran, Bandung Indonesia. He also received Senior Professional Engineer (IPE) Certificate from The Institution of Engineers Indonesia (PII) and Asean Engineer Registered from ASEAN Federation of Engineering Organization (AFEO). After finishing school at ITB in 1980, his career began with working at the Indonesia State Railway Company, which continued to work in the government office, the Ministry of Transportation. His top position is The Director General of Railways which was held until 2016. After completing the assignment as Director General of Railways, he is currently concentrating more on the development of Railway Human
The Role of Railway Industry in Indonesia’s Economic Growth
Hermanto Dwiatmoko, Faculty of Engineering, University of Mercu Buana, Jakarta, Indonesia

9:40 - 10:20 (Wednesday): Keynote: Mr. Anurat Suthammiurn, Executive Vice President, Corporate Food Processing & Engineering, CPF (Thailand) Public Company Limited, Silom, Bangkok, Thailand

10:20 - 11:00 (Wednesday): Keynote: Prof. Thumrongrut MUNGCCHAROEN (RUTT), Chairperson of Energy and Environment Cluster, National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, Thailand, Kasetsart University, Bangkok, Thailand

Session VI: Industry Solutions - Panel Session on Supply Chain Sustainability
11:30 am – 1:00 pm (Wednesday) – Room 2

Session Chair: Professor Jose Arturo Garza-Reyes, University of Derby, UK

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

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

Dr. Jose Arturo Garza-Reyes is a Professor of Operations Management and Head of the Centre for Supply Chain Improvement at the College of Business, Law and Social Sciences, University of Derby, UK. He is actively involved in industrial projects where he combines his knowledge, expertise and industrial experience in operations management to help organisations achieve excellence in their internal functions and supply chains. He has also led and managed international research projects funded by the British Academy, British Council and Mexico’s National Council of Science and Technology (CONACYT). As a leading academic, he has published over 100 articles in leading scientific journals, international conferences and four books in the areas of operations management and innovation, manufacturing performance measurement and quality management systems. Areas of expertise and interest for Professor Garza-Reyes include general aspects of operations and manufacturing management, business excellence, quality improvement, and performance measurement. He is a Chartered Engineer (CEng), a certified Six Sigma-Green Belt, and has over eight years of industrial experience working as Production Manager, Production Engineer and Operations Manager for several international and local companies in both the UK and Mexico. He is also a fellow member of the Higher Education Academy (FHEA) and a member of the Institution of Engineering Technology (MIET).

Panel Speaker I

Engr. Hemendra Nath Roy
Supply Chain Superintendent
GILDAN® G.A.B. Limited.
Polashbari, Asulia, Savar, Dhaka-1349
Bangladesh

Supply Chain Dynamics-Perspectives of Bangladesh

Engr. Hemendra Nath Roy has completed his Bachelor of Industrial and Production Engineering (IPE) from Khulna University of Engineering and Technology (KUET), a reputed public university in Bangladesh in the year of 2012. He has been engaging himself with diversified application based research and publication along with a dynamic professional career development at Gildan Bangladesh, a Canadian Apparel Manufacturing company. Around six research works have been published in different renowned journals and International conferences where the major research area were Implementation of different industrial Engineering tools and concept like Six Sigma, Multi-criteria base decision analysis, Data Analytics, Reverse logistic, Green Supply Chain to enhance the productivity and Supply Chain performance. Also he has been facilitating a good number of Technical sessions on key area of Industrial and System engineering in different university in Bangladesh. In the last 6 years of professional experience he has been proving himself as a diversified experienced person in Manufacturing & Supply chain dynamics, Operations Management, Project management, Sourcing, Procurement, service process improvement, Product development and commercial management. In addition, two successful Raw-material cost reduction projects, Establishment and implementation of Vendor Selection, Monitoring and Evaluation Process, Vendor managed JIT inventory controlling system are being accomplished/developed in his recent responsibilities as a Superintendent of Supply Chain Department.

Panel Speaker II

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

Panel Speaker III

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

Panel Speaker IV

Dr. Wahyudi Sutopo
Associate Professor and Head
Department of Industrial Engineering
University of Sebelas Maret
Surakarta, Indonesia

1:00 - 2:30 (Wednesday): Networking Buffet Lunch

1:30 - 2:00 (Wednesday): Lunch Keynote Mr. Dieter Broeckl, Senior Vice President and Head of Digital Factory (DF) / Process Industry and Drive (PD) Division, Siemens Limited Thailand
Women in Industry and Academia (WIIA) Panel Session

Panel Chair
Dr. Kanchana Sethanan
Associate Professor, Department of Industrial Engineering and Head of Research unit on System Modeling for Industry
Khon Kaen University, Thailand

Dr. Kanchana Sethanan is a Professor at Khon Kaen University. For her work experience, she worked as a Director of the Energy Management and Conservation Office during 2007-2015. Dr. Kanchana also has intensive research experience on various research projects in the areas of optimization, agri-food supply chain, transportation, agricultural business model, and energy management. She received the best researcher award at the Second International Data Storage Technology Conference for International conference in DST-CON 2009 (Industry/University Cooperative Research Center (IUCRC) in HDD Component), the best researcher for “Outstanding Research to Excellence” (Industry/University Cooperative Research Center (IUCRC) in HDD Component and NSTDA), and the best Paper award in IML2013&ISMI 2013. She is currently a board member of the Asia Pacific Industrial Engineering and Management Society (APIEMS) and International Federation of Logistics and SCM Systems (IFLS). Dr. Kanchana is also a senior consultant of Agrifood and Electronics companies. She also enrolls the government projects to establish the national energy conservation action plans in the transportation sector.

WIIA Panel Speaker I
Miss Nirantree Jaingok
Planning Engineer
Operation & Maintenance Department
SCG Company, Thailand

Miss Nirantree Jaingok, 30 years old. I got a bachelor degree with honor in the industrial engineering at Chiangmai University and a master degree graduated from Chulalongkorn University of industrial engineering. Currently I work as a planning engineer position in the operation & maintenance department of SCG Company. I have involved in petrochemical filed for 8 years which roles and responsibilities are improved strategies and practices for operation and maintenance to be standard system, also analyze problems from Operation and Maintenance routine work to achieve target of KPI. Furthermore, applying tools or techniques to solve problems that under the basic knowledge of industrial engineering as well. I have obtained the certified auditor of ISO9001, ISO14000 and ISO27001 that also be guidelines to improve quality work of the operation and maintenance process system.

WIIA Panel Speaker II
Dr. Rattanawan Mungkung
Founding Director of VGREEN
Assistant Professor in Life Cycle Assessment (LCA)
Department of Environmental Technology and Management
Kasetsart University, Thailand

Rattanawan is the founding director of VGREEN, aiming to provide technical supports for the industry to move towards sustainable development. She has intensive experiences on LCA and its application for sustainability. She has been doing research and providing consultancy services for various industries on the applications of LCA for sustainable development goals, eco factory, green industry, life cycle management, and eco-product development. She also serves as the strategic national policy committee on green growth. Moreover, she is very experienced in numerous certifications and eco-label schemes (national and international) especially carbon footprint and EU Flower. In addition, she has been involved in the research national network called ‘Life Cycle Assessment and Policy for Food, Feed, Fuel & Climate change’, LCA Agri-Food ASIA (the regional level), as well as LCA Food (the international level).

WIIA Panel Speaker III
Jutapat (Air) Boonvongsakorn
Managing Director
Procter & Gamble Manufacturing (Thailand) Ltd.

Transformation and Change Leader. More than 20 years of experiences in driving Breakthrough Transformation in Global Corporate Environment with Local Insight and Entrepreneurial Leadership. First Asian and Local Thai Managing Director in Procter & Gamble Manufacturing (Thailand), First Asian Female Global Innovation and Engineering Associated Director, Has Lived and worked in USA, Singapore, Japan and Thailand. Developed End to End Expertise in Business, Consumers, Technology, Culture and Organization in 5 regions around the world. Global track record in leading large-complex organization, managing The Top 5 most complex and biggest one of Global P&G supply chains and factories, export to more than 30 countries. Certified Advanced Project Management (CMO) and Certified Advanced Innovation Management. Leading Business Platform Strategy, Portfolio Management, Holistic End to End Supply Chain Design, Re-platforming Program, Technology Integration and Business Operation. Passionate, Champion and Dedicated to improve lives by developing and inspiring to bring out the best of people and transforming organization to next S-Curve to deliver breakthrough in the fast-changing world.

WIIA Panel Speaker IV
Jutamas Ingpochai, Ph.D.
Vice President of Investor Relations
GFPT Public Company Limited, Thailand

Jutamas Ingpochai, Ph.D. is a Vice President of Investor Relations at GFPT Public Company Limited. She facilitates company’s key activities in finance performance evaluation, investment feasibility, business decision making, information technology, corporate governance, and administration on sustainability development. Her main role is to communicate company’s strategy, growth opportunities, and business initiatives to investors. Jutamas also serves on the Board of Directors of Principal Capital Public Company Limited as an independent director and audit committee. She is also a lecturer in graduate school at Bangkok University. Her specialized topics are strategic management, corporate finance, and food business management. Previously, Jutamas worked as a sales and production planning manager in food processing plant, responsible for all aspects of production planning, inventory control, processing MRP, and production schedules to ensure customer order fulfillment. Prior to joining GFPT, she served in commercial bank and financial consulting firm specialize in debt restructuring. Jutamas completed her
Session VIII: Industry Solutions

Panel Chair: Assoc. Prof. Apichat Sopadang, Department of Industrial Engineering, Chiang Mai University, Thailand

4:30 – 6:00 pm (Wednesday) – Room 2

Industry 4.0 Panel Session

Panel Chair
Dr. Apichat Sopadang
Associate Professor
Department of Industrial Engineering
Head of Excellence Center in Logistics and Supply Chain Management (E-LSCM)
Associate Dean at the Graduate School
Chiang Mai University, Thailand

Apichat Sopadang is an Associate Professor in the Department of Industrial Engineering and a head of Excellence Center in Logistics and Supply Chain Management (E-LSCM). He graduated with a degree in the industrial engineer from Chiang Mai University, Thailand in 1987 and holds a Ph.D. from the Clemson University, the USA in 2001. His research interests focus on supply chain and logistics management, and multiple criteria decision-making. He current work on an Associate Dean at the Graduate School, Chiang Mai University, Thailand.

Panel Speakers

Panel Speaker I
Prof. Athakorn Kengpol
Professor of Industrial Engineering
Faculty of Engineering
King Mongkut’s University of Technology North Bangkok, Thailand

Athakorn Kengpol is Professor of Industrial Engineering at the Faculty of Engineering, King Mongkut’s University of Technology North Bangkok, Thailand. He received PhD in Manufacturing Engineering and Operations Management from The University of Nottingham, UK and DSc in Industrial Engineering and Management from the Lappeenranta University of Technology, Finland. His research interests include Artificial Intelligent in Decision Support Systems for Cyber Physical System, management informati on systems and packaging design.

Panel Speaker II
Professor Kanchana Sethanan
Industrial Engineering
Faculty of Engineering
Khon Kaen University, Thailand

Dr. Kanchana Sethanan is a Professor at Industrial Engineering Department, Khon Kaen University. She is also the Head of Research unit on System Modeling for Industry, Khon Kaen University. For her work experience, she worked as a Director of the Energy Management and Conservation Office during 2007-2015. Dr. Kanchana also has intensive research experience on various research projects in the areas of optimization, agri-food supply chain, transportation, agricultural business model, and energy management. She received the best researcher award at “The Second International Data Storage Technology Conference” for International conference in DST-CON 2009 (Industry/University Cooperative Research Center (IUCRC) in HDD Component), the best researcher for “Outstanding Research to Excellence” (Industry/University Cooperative Research Center (IUCRC) in HDD Component and NSTDA), and the best Paper Award in IML2013&ISMI 2013. She is currently a board member of the Asia Pacific Industrial Engineering and Management Society (APIEMS) and International Federation of Logistics and SCM Systems (IFLS). Dr. Kanchana is also a senior consultant of Agrifood and Electronics companies. She also enrolls the government projects to establish the national energy conservation action plans in transportation sector.

Panel Speaker III
Dr. Sakgasem Ramingwong
Associate Professor in Industrial Engineering
Faculty of Engineering
Chiang Mai University, Thailand

Sakgasem Ramingwong is an Associate Professor in Industrial Engineering at Chiang Mai University, Thailand. His research interests are in industrial logistics and supply chain management.
IEOM Industry Solutions

Bangkok, Thailand, March 5-7, 2019

Panel Speaker IV
Dr. Warisa Wisitipanich
Assistant Professor
Department of Industrial Engineering
Faculty of Engineering
Chiang Mai University
Thailand

Warisa Wisitipanich received the Doctor degree of Engineering from Asian Institute of Technology, Thailand in 2012. Since then, she has been working as an assistant professor at the Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Thailand. Her areas of interest and research are operations research, production scheduling and sequencing, inbound and outbound truck scheduling, vehicle routing problem, supply chain and logistics management, and metaheuristic application for optimization.

Panel Speaker V
Dr.-Ing. Patrick Dallasega
Assistant Professor in Industrial Engineering
Faculty of Science and Technology
Free University of Bolzano, Italy

Patrick Dallasega is an Assistant Professor of Supply Chain Management and Industrial Plants Design at the Faculty of Science and Technology of the Free University of Bolzano (Italy). He studied at the Free University of Bolzano (Italy), at the Polytechnic University of Turin (Italy) and got his PhD at the University of Stuttgart (Germany). He was Visiting Scholar at the Excellence Center in Logistics and Supply Chain Management Chiang Mai University (Thailand). His main research interests are in lean construction, supply chain management, Industry 4.0, lean manufacturing and production planning and control in MTO and ETO enterprises.

Panel Speaker VI
Dr. Manuel Woschank
Postdoc Senior Lecturer and Researcher
Department of Economic and Business Management
Chair of Industrial Logistics
University of Leoben, Austria

Manuel Woschank is a Postdoc Senior Lecturer and Researcher at the Department of Economic and Business Management, Chair of Industrial Logistics at the University of Leoben. Dr. Woschank holds a Diploma degree in Industrial Management and a Master Degree in International Supply Management from the University of Applied Sciences FH JOANNEUM, Austria and a Ph.D. in Management Sciences from the University of Latvia, Latvia. He has published international journal and conference papers and has conducted research projects with voestalpine AG, Stahl Judenburg – GMH Gruppe, Knapp AG, SSI Schaefer, MAGNA International Europe GmbH, Hoerbiger Kompressortechnik Holding GmbH, voestalpine Boehler Aerospace GmbH & Co KG, etc. His research interests include Logistics Systems Engineering, Logistics Process Optimization, Production Planning and Control Systems and Behavioral Decision Making Theory. He is a member of BVL, WING, Logistikclub Leoben, ILA and GfEw.

Thursday, March 7, 2019

Session IX: Industry Solutions • 8:00 – 9:30 am (Thursday) – Room 2
Session Chair: Dr. Wichai Chattinnawat, Chiang Mai University, Thailand

8:00 – 8:20 (Thursday) – Room 2

Ihfasuziella Binti Ibrahim
Researcher
Construction Research Institute of Malaysia (CREAM)
Construction Industry Development Board (CIDB)

Suitability Study for IBS Productivity Incentive in Malaysia Construction Industry

Ihfasuziella Ibrahim is a Researcher at Construction Research Institute of Malaysia (CREAM). CREAM is a research institute established under the Construction Industry Development Board (CIDB), which she joined in February 2013. Ihfasuziella started her career after completing a Bachelor Science in Real Estate Management with Honors from UTM, Johor in 2009. Upon completing her studies, she has been a research assistant in University Tun Hussein Onn Malaysia (UTHM) in 2010 under the Technology Management & Business faculty. Due to high enthusiasm and encouragement for continuing studies, Ihfasuziella have been offered a place at University Tun Hussein Onn Malaysia entering Masters level on Science in Property and Facilities Management in 2010. The title of her thesis is “Development of Space Charging Model in Malaysian Higher Education Institutions. Currently, she pursued his PhD in Facilities Management at MARA University of Technology (UiTM). She is also member in Malaysian Association of Facilities Management (MAFM). Her research interests are currently in the areas of facilities management, real estate management, performance management and construction worker’s amenities. She was published papers in the local and international conference, seminars, journals, articles and chapter in books.

8:20 – 8:40 (Thursday) – Room 2

Dr. Sandro A V Lordelo
Researcher
University Federal Fluminense by LabCEO / UFF
Professor of Industrial Engineering at Anhanguera University Center
Rio de Janeiro, RJ, Brazil

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Ninth Annual International Conference
8:40 – 9:00 (Thursday) – Room 2

Dr. Wimalin Laosiritaworn
Associate Professor
Department of Industrial Engineering
Chiang Mai University, Thailand

Wimalin Laosiritaworn is an Associate Professor in the department of industrial engineering, faculty of engineering, Chiang Mai University. She earned B.Eng in Industrial Engineering from Mahidol University, Thailand, Master in Engineering Business and Management from University of Warwick, United Kingdom and Ph.D. in Manufacturing Engineering and Operations Management from University of Nottingham, United Kingdom. Her research interest includes manufacturing process modeling, materials properties modeling, manufacturing data analytic and data mining.

9:00 - 9:20 (Thursday)

ID 578 Internet of Things, Big Data and Simulation as a Competitive Advantage in the New Age of Industry 4.0
Sandro Lordelo, Federal Fluminense University, Rio de Janeiro, RJ, Brazil

Sandro A V Lordelo holds a bachelor’s degree in Industrial Engineering from Fluminense Federal University (2011), a master’s degree in Industrial Engineering from Universidade Federal Fluminense (2013) and currently holds a PhD in Industrial Engineering from Universidade Federal Fluminense. Currently, is a researcher at the University Federal Fluminense by LabCEO / UFF and Professor of Industrial Engineering at Anhanguera University Center. Has experience in the area of Industrial Engineering, working mainly in the following subjects: organizational strategy, complex projects, project planning, electronic games, interactive media, logistics, quality engineering, productivity, finance, entrepreneurship and digital transformation.

ID 589 Industry 4.0 Gap Analysis for Thai Industries with Association Rules mining
Dr. Wimalin Laosiritaworn, Chiang Mai University, Thailand

ID 590 Industry 4.0 Gap Analysis for Thai Industries with Association Rules mining

9:20 - 9:40 (Thursday)

Pn Maria Zura Mohd Zain
Manager at Centre for Advanced Construction Technology and Innovation (CACTI)
Construction Research Institute of Malaysia (CREAM)
Kuala Lumpur, Malaysia

Maria Zura Mohd. Zain is a Manager at Centre for Advanced Construction Technology and Innovation (CACTI), Construction Research Institute of Malaysia (CREAM). CREAM is a research institute established under the Construction Industry Development Board (CIDB), which she joined in August 2006. She started her career as a researcher in Forest Research Institute of Malaysia (FRIM) in 2002 under the unit of timber engineering. She holds a B. Eng (Hons) in Civil engineering from the Universiti Sains Malaysia and she gained her Masters in Civil Engineering also from Universiti Sains Malaysia. She also a member of Board of Engineers Malaysia (BEM) and appointed as one of the Editorial Advisory Board for Malaysian Construction Research Journal (MCRJ). Her research interests are in advance material, environment and sustainable and Green Technology. She has published various technical papers, journals, proceedings and articles. Previously, she was part of main secretariat for establishment of guidelines for construction on peat and organic soils in Malaysia. She also involved in development of standard for temporary construction site workers’ amenities and accommodation (MS 2593:2015). She is also the Quality Manager for CREAM and oversees the implementation of quality management system for the CREAM R&D management system to comply with the MS ISO 9001:2008 requirement.

9:40 – 10:00 (Thursday)

Keynote: Dr. Chen-Fu Chien, Tsinghua Chair Professor, Department of Industrial Engineering & Engineering Management, National Tsing Hua University and Convener, Industrial Engineering and Management Program, Ministry of Science & Technology, Director, Artificial Intelligence for Intelligent Manufacturing Systems Research Center, Ministry of Science & Technology, Hsinchu, Taiwan

10:00 - 11:00 (Thursday)

Keynote: Dr. Josu Takala, Professor, Industrial Management and Materials Management, University of Vaasa, Finland
Opening Topic: Quality 4.0 – Current trends overview

Dr. Mehran Doulat-Abadi (Panel Chair)
Visiting Senior Research Fellow, Meiji University, Tokyo, Japan

Dr. Mehran Doulat is now a visiting senior research fellow at Meiji University, Tokyo, Japan. Apart from academics, he is also Co-founder and Director of Spectral Academy for Research, Training and Consultancy (SARTC). He holds a Bachelor of Science in Engineering, double Master’s Degrees in Engineering Management and Quality Management and a Ph.D. from University of Wollongong, Australia. Dr. Doulat has completed 2 years Post-Doctoral Fellowship in the area of Innovation and Performance Excellence. He has more than 15 years of experience related to quality excellence models, performance measurement, and benchmarking methodology. He is a certified EFQM Excellence Assessor and a “TRADE” Certification Best Practice Benchmarking. He served as a Senior Assessor for the Dubai Quality Award (DQA) program since 2007. He has been actively involved in a number of academic-industrial projects and research in United States, Canada, Australia, New Zealand, United Kingdom, Singapore, Malaysia, India, Japan and UAE such as UAE Service Excellence Program (2007-2012). As a leading academic, he has published more than 80 academic papers and books in leading scientific journals, international conferences. Dr. Doulat serves as the Editorial Board member and Associate Editor/Reviewer for several referred academic journals. He has also been nominated and received several awards for his research contributions including “the IEOM Outstanding Publication Award in 2012 and 2013”, “the IEOM Best Paper Award in 2015 and 2018”, “UOW Outstanding Alumni Award in Research and Innovation in 2016” and “the IEOM Outstanding Service Award in 2018”. He is a registered professional member of AOQ, ASQ, and JUSE. Dr. Doulat has held visiting research appointments at University of Wollongong, Australia, National University of Singapore, Meiji University, Japan, Universiti Teknologi Malaysia, and University of Derby, UK (2019-2020).

Panel Speaker I
Prof. Dr. Ir. Sha’ri M. Yusof
Professor in Quality Engineering and Management
Dean Razak Faculty of Technology and Informatics
Universiti Teknologi Malaysia.

Dr. Sha’ri is a Professor of Quality Engineering and Management in UTM. Prior to becoming an academic, he worked as an industrial Engineer in an automotive company. He has completed numerous research projects in topics relating to Quality Management, Quality Engineering, Sustainability, and Lean Manufacturing, especially relating to Malaysia and ASEAN automotive industry. He has published papers in international journals and conferences and provided training to organizations in Quality Management and Industrial Engineering.

Panel Speaker II
Dr. Wasawat Nakkiew
Assistant Professor
Department of Industrial Engineering
Head of Department Industrial Engineering
Chiang Mai University, Thailand

Dr. Wasawat Nakkiew is an Assistant Professor in the Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Thailand. He current work on a head of Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Thailand. He graduated with a Master of Engineering in the industrial engineer and holds a Ph.D. from the Purdue University in West Lafayette, Indiana. His research interests focus on quality control and industrial engineering.

Panel Speaker III
Mr. Tetsuo Hosokawa
Head of Customer First Center, Customer First Planning Division
Learning Promotion Group
Ricoh Company, Ltd., Japan

Mr. Tetsuo Hosokawa re-joined to Ricoh in 2007, and up to now, he had been engaging in the promotion and development of Quality Technology Methods. He was received the master’s degrees in applied physics from the Tokyo University of Agriculture and Technology, Tokyo Japan. After graduation, he had been working for the research and development of optical and magnet memory disk in three companies, Ricoh, Nikon, and Fujitsu. In Ricoh, he and his team member developed a new Quality Technology Method named CS-T (Causality Search T-Method) and they received the Quality Engineering Award for the establishment of CS-T method from the Japanese Society for Quality Control. In 2018, he enrolled in Meiji University as a working student to obtain a Ph.D.

1:00 - 2:30 (Thursday): Networking Buffet Lunch
1:30 - 2:00 (Thursday): Lunch Keynote:

Session XI: Industry Solutions - 2:30 pm – 4:00 pm (Thursday) – Room 2
Session Chair: Dr. Manoj Soni, Birla Institute of Technology and Science, Pilani, Jhunjhunu, Rajasthan, India

Dr. Poti Chaopaisarn
Assistant Professor and Researcher
Department of Industrial Engineering
Chiang Mai University, Thailand

Poti Chaopaisarn is an Assistant Professor and Researcher at Department of Industrial Engineering, Faculty of Engineering at Chiang Mai University, Chiang Mai, Thailand. Dr. Chaopaisarn holds a Bachelor in Business Administration in Marketing from Thammasat University, Bangkok, Thailand, a Master of Science Degree in International Transport, a Master of Philosophy Degree in Social Science Research Method and a Ph.D. in Logistics and Operations Management from Cardiff University.
Manuel Woschank is a Postdoc, Senior Lecturer and Researcher at the Department of Economic and Business Management, Chair of Industrial Logistics at the University of Leoben, Austria. Dr. Woschank holds a Diploma degree in Industrial Management and a Master Degree in International Supply Management from the University of Applied Sciences FH JOANNEUM, Austria and a Ph.D. in Management Sciences from the University of Latvia, Latvia. He has published international journal and conference papers and has conducted research projects with voestalpine AG, Stahl Judenburg – GMH Gruppe, Knapp AG, SSI Schaefer, MAGNA International Europe GmbH, Hoerbiger Kompressortechnik Holding GmbH, voestalpine Boehler Aerospace GmbH & Co KG, etc. His research interests include Logistics Systems Engineering, Logistics Process Optimization, Production Planning and Control Systems and Behavioral Decision Making Theory. He is a member of BVL, WING, Logistikclub Leoben, ILa and Gf eW.

ID 240 Requirement Analysis for SMART Supply Chain Management for SMEs
Poti Chaopaisarn, Chiang Mai University, Thailand
Manuel Woschank, Department of Economic and Business Management, Chair of Industrial Logistics at the University of Leoben, Austria

3:00 – 3:20 (Thursday) – Room 2

Bashir Salah
Vice Dean of Advanced Manufacturing Institute
Assistant Professor of Industrial Engineering
King Saud University, KSA

Bashir Salah Vice Dean of Advanced Manufacturing Institute. Since March 2014 Dr. Salah works as assistant professor of industrial engineering at king Saud University, KSA. His job involves conducting research as well as teaching undergraduate courses in the area of industrial engineering. Furthermore, he is involved in several administrative duties in the Industrial Engineering Department. He is also a member of accreditation committee in the same department. Dr. Salah has established collaborations in a wide range of industrial and academic projects, at both national and international levels. His current research interests lie in three areas: (i) design and analysis of computer integrated manufacturing, logistics, and supply chain, (ii) industrial facilities planning, and (iii) Industry 4.0: Smart Manufacturing Systems/ Smart Factories. Dr. Salah received both his PhD and MSc degrees in Industrial Engineering from University of Duisburg Essen, Germany, in 2013 and 2008, respectively. He also attended a professional technical training in mechatronics at the German Technical Cooperation Agency. Before that, he obtained his Bachelor degree in mechanical engineering from Palestine polytechnic university.

ID 224 Design and Simulation Based Validation of a Reconfigurable Manufacturing System
Bashir Salah, King Saud University, Riyadh, Saudi Arabia

3:20 – 3:40 (Thursday) – Room 2

Associate Professor Dr. Che Zalina Zulkifli
Computing Department
Faculty of Arts, Computing & Creative Industry
Sultan Idris Education University
Tanjung Malim, Perak, Malaysia

She had over 18 years professional teaching experience as a lecturer and active researcher in the Electronics & Electrical Engineering, Information Technology, Embedded System, Industry Creative & Networking area. She also had industry working experience as a Test Engineer in the multinational company. Her research projects have been collaborated with multinational company which contributes to a network that lead to new ideas and concrete research project. The developed automation projects that focused on Sensor Monitoring, Embedded System, Software, IoT and Wireless Communication fields have been successfully adopted by the industry to date. Her research and scientific outputs have been translated to numbers of awards, publications and patents. To date, a total of more than a million Ringgit has been generated as an income to the University mainly from the Research grant, Commercialization of research innovative products and also the services as a principle consultant. She also enhanced her expertise in the agriculture sector with new invention to improve the crop production adopted high technology. She sincerely dedicated to the very wise in the green project about recycling and reusage of waste. True visionary environmental entrepreneurs, helping making Penang and Malaysia more environmentally sustainable. To date, she has won several international awards and national award based on her patented innovation. Through all her participations, she has developed confidence and interest in researching and teaching areas to enhance Creative Innovation in Engineering, Science & Technology.

ID 478 Performance Evaluation of Integrated Moisture Sensor with ZigBee Mesh Network for Automated Irrigation System
Che Zalina Zulkifli, Nursyahida Mohd Noor and Nur Hazlina Abu Hassan, Computing Department, Sultan Idris Education University, Tanjung Malim, Perak, Malaysia

3:40 – 4:00 (Thursday) – Room 2

Chawalit Jeenanunta, Ph.D.
Associate Professor
Deputy Director for Building, Ground and Properties
Head of Logistics and Supply Chain Systems Engineering Research Unit and Centre for Demonstration and Technology Transfer of Industry 4.0 (LogEn i4.0)
Srinindhorn International Institute of Technology
Thammasat University
Bangkadi Muang, Pathumthani, Thailand
Session XII: Industry Solutions - 4:30 pm – 6:00 pm (Thursday) – Room 2
Session Chair: Lawrance Seseni, University of Johannesburg, South Africa

4:30 – 5:00 (Thursday) – Room 2

Mohd Norzaimi Che Ani
Lecturer of Manufacturing Section
Universiti Kuala Lumpur
Malaysia

Mohd Norzaimi Che Ani is Lecturer of Manufacturing Section from Universiti Kuala Lumpur, Malaysian Spanish Institute. He earned B.Eng. in Mechanical Engineering and M.Sc. degree from Universiti Teknologi Malaysia. Research interests include the field related in industrial engineering and completed various research projects focusing continuous improvement programs.

ID 392 Streamlining the Flow of Production System through Elimination the Waste of the Overburden (Muri) for Manual Handling Process
Mohd Norzaimi Che Ani, Universiti Kuala Lumpur - Malaysian
Shahrui Kamaruddin, Universiti Teknologi Petronas, Malaysia
Ishak Abdul Azid, Universiti Kuala Lumpur, Malaysian Spanish Institute, Malaysia

5:00 – 5:30 (Thursday) – Room 2

Benmounah Amar
Department of Transport and Equipment of Hydrocarbons.
University Mhamed Bougara
Boumerdes, Algeria

ID 475 Influence of the type of Pipeline Integrity Assessment on the effectiveness of repairs
Amar BENMOUNAH, University of Boumerdes UMBB, Boumerdes, Algeria

5:30 – 6:00 (Thursday) – Room 2

Mr. Lawrance Seseni
Lecturer, Department of Business Management
Centre of Small Business Development (CSBD)
University of Johannesburg, South Africa

Mr. Lawrance Seseni is a Lecturer at the University of Johannesburg (UJ) in the Department of Business Management and Centre for Entrepreneurship, lecturing Entrepreneurship, Entrepreneurial Growth and Strategies, and Introduction to Business Management. He is also a Faculty Advisor in a student organization called Enactus University of Johannesburg. He has been serving at Enactus University of Johannesburg since 2012 holding different portfolios. In the year 2017, he became a member of the University of Johannesburg’s IEOM (Industrial Engineering & Operations Management) student chapter, where he currently serves as a Director of Finance. Mr. Seseni also serves as a board secretary at IBASA YC (Institution of Business Advisers South Africa Youth Chapter). He pursued his Masters Degree (Operations Management) which focused on "Quality Management on Furniture Manufacturing SMEs (Small Medium Enterprises)". He is currently enrolled for a Ph.D. (Engineering Management) at the University of Johannesburg (UJ) and his main focus is on "The use of Big Data by furniture manufacturing SMEs". His interest in research is "Knowledge Management in SMEs, Service and Product Quality within SMMEs and Fourth Industrial Revolution (Artificial Intelligence & Big Data)". In the year 2011 he was a top achiever (student) in the Department of Business Management and he is also a Golden Key member. He published and presented 9 conference papers internationally. He is currently working on a book titled "Running a small business in the fourth industrial era".

Professor Charles Mbohwa
Professor, Faculty of Engineering and the Built Environment
University of Johannesburg, Auckland Park, South Africa

Professor Charles Mbohwa is a full professor in Faculty of Engineering and the Built Environment, University of Johannesburg. He was formerly the Vice-Dean for postgraduate studies research and innovation and Acting Dean of the faculty. He obtained B. Sc. Honours in Mechanical Engineering in 1988 from Department of Mechanical Engineering, University of Zimbabwe, Harare, Zimbabwe. He later bagged M. Sc. in Operations Management and Manufacturing Systems in 1992, with a distinction from Department of Manufacturing Systems Engineering, University of Nottingham, UK. He obtained PhD in Engineering (Production Systems focusing on Energy and life cycle assessment) from Tokyo Metropolitan Institute of Technology, Tokyo, Japan in 2004. Professor Mbohwa is an NRF-rated established researcher. In January 2012 he was confirmed as an established researcher making significant contribution to the developing fields of sustainability and life cycle assessment. In addition, he has produced high quality body of research work on Southern Africa. He is an active member of the United Nations Environment Programme/Society of Environmental and Toxicology and Chemistry Life Cycle Initiative, where he has served on many taskforce teams.

ID 639 SMEs Managing Organisational Knowledge in the 4IR Era: A Case Study of Developing Countries
Lawrance Seseni and Charles Mbohwa, Department of Quality and Operations Management, University of Johannesburg, Auckland Park, RSA
Exhibitor

Advent2 Labs, Singapore

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First African IEOM Conference, Pretoria, South Africa, October 30 – November 1, 2018

Third North American IEOM Conference, Washington, DC, USA, September 27-29, 2018
Second European IEOM Conference, Paris, France, July 26-27, 2018

First IEOM Fellows Induction at the IEOM Bandung Conference on March 7, 2018
High School & Middle School STEM Poster Competition Detroit 2018

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University of Windsor, Canada

Lawrence Technological University

University of New Brunswick at Fredericton, Canada
IEOM Student Chapter at Universiti Tun Hussein Onn Malaysia (UTHM)

Government College University Faisalabad (GCUF), Pakistan

Khulna University, Bangladesh

IEOM Michigan Chapter
IEOM Price Sultan University, KSA Chapter

Guru Nanak Dev Engineering College, Punjab, India

IEOM Botswana Chapter

Zagazig University, Egypt
IEOM University of Johannesburg Chapter

IEOM King Fahd University of Petronius and Minerals (KFUPM) Seminar 2018

Sheridan College, Brampton, Ontario, Canada Presentation 2018

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh
University of Costa Rica Industry Presentation 2018

King Saud University, Riyadh, Saudi Arabia

Effat University, Jeddah, Saudi Arabia
IEOM Student Chapters

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

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- Networking
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- Fund Raising
- Membership Building
- Community Outreach
- Alumni Relations
- Leadership and Teambuilding Skills

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IEOM First Symposium on “Application-based Industrial Engineering Education”
Date: 4 August, 2018; Venue: Jessore University of Science and Technology (JUST), Bangladesh
Organized by JUST and IEOM Society of Bangladesh
Theme: Present scenario of IE Education in Response to Global Environment and Contribution of IE to Industrial Development in Bangladesh

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

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

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

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

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

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

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

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

IEOM University of Monterrey (UDEM), Mexico Visit, May 29-30, 2018
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<td>Australia</td>
<td>1. Queensland University of Technology (QUT), Brisbane</td>
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<td>Bangladesh</td>
<td>2. Ahsanullah University of Science &amp; Technology, Dhaka</td>
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<td>High School / Middle School Student Chapters</td>
<td>89. Bay Area of San Francisco &amp; San Jose, California, USA</td>
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IEOM Upcoming Events

3rd EU International Conference on Industrial Engineering & Operations Management
Pilsen, Czech Republic, July 23-26, 2019
Venue: Park Hotel Pilsen, Czech Republic
www.ieomsociety.org/pilsen2019/

First Central American IEOM Symposium on Industry 4.0 / Logistics and Manufacturing 4.0
San Jose, Costa Rica, June 12-13, 2019
Venue: Industrial Engineering Department, University of Costa Rica
www.ieomsociety.org/ieom/costarica2019/

4th North American Conference on Industrial Engineering & Operations Management
Toronto, Canada, October 23-25, 2019
Venue: Holiday Inn Toronto Interna. Airport
www.ieomsociety.org/toronto2019/

1st GCC International Conference on Industrial Engineering and Operations Management
Nov. 26-28, 2019, Riyadh, Saudi Arabia
Venue: Prince Sultan University (PSU) Campus
www.ieomsociety.org/gcc2019/

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

2nd South American Conference on Industrial Engineering & Operations Management
São Paulo, Brazil, April 14-16, 2020
Venue: Maksoud Plaza Hotel, São Paulo
www.ieomsociety.org/brazil2020/