

# Fourth International Conference on Industrial Engineering and Operations Management (IEOM)

Grand Hyatt Hotel, Bali, Indonesia, January 7 -9, 2014

[www.iiom.org](http://www.iiom.org)

## Overall Conference Program

### January 6, 2014 (Monday)

15:00 – 21:00 Registration

### January 7, 2014 (Tuesday)

07:00 – 17:00 Registration

08:00 – 08:30 **Welcome:** Prof. Dr. Ir. Tri Yogi Yuwono, President, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

08:30 – 09:30 **Opening Keynote:** Dr. Kenneth Musselman, Strategic Collaboration Director, Regenstrief Center for Healthcare Engineering at Purdue University, USA and Past IIE President.

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Tea / Coffee Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Tuesday Lunch **Keynote:** Dr. Nyoman Pujawan, Professor, Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia.

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

18:00 – 20:00 WELCOME RECEPTION

### January 8, 2014 (Wednesday)

07:00 – 17:00 Registration

08:30 – 09:30 Wednesday Morning **Keynote:** Mr. Made Dana Tangkas, VP of Toyota Motor Asia Pacific Engineering and Manufacturing and Director of PT. Toyota Motor Manufacturing Indonesia

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Tea / Coffee Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Wednesday Lunch **Keynote:** Dr. Robert de Souza, Executive Director, The Logistics Institute – Asia Pacific, Singapore

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

19:00 – 23:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS

### January 9, 2014 (Thursday)

07:00 – 15:00 Registration

08:30 – 09:15 Thursday Morning I **Keynote:** Dr. John Blakemore, CEO, Blakemore Consulting International, Australia and Former National President of the Manufacturing Society of Australia

09:15 – 10:00 Thursday Morning II **Keynote:** Dr. Petri Helo, Professor of Logistics, Department of Production, Faculty of Technology, University of Vaasa, Finland

10:00 – 10:15 Break

10:15 – 11:30 Parallel Sessions

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Lunch

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

**“Achieving and Sustaining Operational Excellence”**



## KEYNOTE SPEAKERS

### Opening Keynote (Jan. 7, 2014)

#### DR. KENNETH MUSSELMAN



**Strategic Collaboration Director of Regenstrief Center for Healthcare Engineering  
Purdue University, USA  
Past IIE President**

At the Regenstrief Center for Healthcare Engineering at Purdue University, Dr. Musselman is responsible for directing multi-disciplinary research teams across engineering, science and management to improve healthcare delivery. The center draws on the strengths of Purdue's 10 academic colleges and the center's partnerships with key healthcare organizations to address impactful, leading-edge research in care coordination and population health.

Prior to coming to the center, Dr. Musselman served as a Director for Cantilever Technologies, a high-tech firm specializing in web-based business activity monitoring and response. Before that, he served as a Senior Product Manager for several world-leading ERP companies where he was responsible for value-add reseller relationships as well as supply chain and advanced planning and scheduling software product design. He has also served as a Vice President for Pritsker Corporation where he directed all corporate consulting and training activities for their simulation-based, capacity management and scheduling software.

For over 30 years, Dr. Musselman has been actively engaged in both healthcare and manufacturing, actively consulting in the aerospace, automotive, communications, computers, consumer products, curative care, electronics, metals and transportation industries. He has consulted to more than 100 organizations worldwide, lectured in over 160 venues throughout North America, Latin America and Europe, and authored more than 60 professional publications.

Dr. Musselman is a Fellow and past President of the Institute of Industrial Engineers. He also serves on the clinical advisory board of OurHealth. He holds Ph.D. and M.S. degrees from Purdue University and a B.A. degree from Western Michigan University.

### Tuesday Lunch Keynote (Jan. 7, 2014)

#### DR. NYOMAN PUJAWAN



**Professor, Department of Industrial Engineering  
Sepuluh Nopember Institute of Technology (ITS)  
Surabaya, Indonesia**

Nyoman Pujawan is Professor of Supply Chain Engineering and the Head of Graduate Program at the Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia. He received a bachelor degree in Industrial Engineering from ITS, Indonesia, Master of Engineering in Industrial Engineering from Asian Institute of Technology (AIT) Bangkok, Thailand, and PhD in Management Science from Lancaster University, UK. He is the CSCP (Certified Supply Chain Professional) holder from APICS. He was a Lecturer in Operations Management in Manchester Business School, The University of Manchester, UK in 2003 – 2004. His papers have been published in many international journals including the European Journal of Operational Research, International Journal of Production Research, International Journal of Production Economics, Production Planning and Control, Business Process Management Journal, among others. He is

the Editor-in-Chief of Operations and Supply Chain Management: An International Journal and in the Editorial Board of a number of international journals. He is a Board Member of Asia Pacific Industrial Engineering and Management Systems Society (APIEMS). Professor Pujawan worked in industry before moving to the academic world and has been actively delivering professional courses and consultancy services to Indonesian companies in the area of operations and supply chain management. He is now a member of committee responsible for designing national logistics systems under the Coordinating Minister for the Economy, Republic of Indonesia.

### Wednesday Morning Keynote (Jan. 8, 2014)

#### MR. MADE DANA TANGKAS



**Director of Corporate Affairs, External Affairs, Production Logistic Control, & Legal  
Astra (YDBA & YABI)  
PT. Toyota Motor Manufacturing Indonesia  
Toyota Motor Asia Pacific, Bangkok, Thailand**

Mr. Tangkas is the director of corporate affairs, external affairs, production logistic control, and legal of Toyota Motor Manufacturing Indonesia (TMMIN) and Astra (YDBA & YABI). He was a vice president/director of production engineering, and Indonesia project leader at Toyota Motor Asia Pacific. He was an advisor for TMMIN BOD. Mr. Tangkas was a director of technical, quality, production control and logistic, exim, and engineering. He was a senior general manager for purchasing division, operation management consulting division, technical directorate, and corporate planning. Mr. Tangkas was a senior general manager for Karawang Plant Operation. He was general manager of production control of PT. Toyota Motor Manufacturing Indonesia. Mr. Tangkas was division head/ general manager of production control, new model project

management chief, and SIP project (ex. Kadera Ar. Indonesia) of PT. Toyota-Astra Motor. He is a trainer and instructor of Toyota Production System, practical problem solving, and assessor for manager development. Tangkas's Professional Activities:

- Chairman of Association of Indonesian Industrial Engineer and Management (ISTMI), in 2008-2015.
- As Speaker and Advisor on Domestic and International for Manufacturing System, TQM, Demand and Supply System, PM, etc.
- Chairman of IGEFI, Chairman of Pelita AI Foundation., Chief of Industry Development in GAIKINDO.

- Chairman of APJP (Asosiasi Perusahaan Jalur Prioritas) in 2012-2015.
  - President of AJJIF (Jujitsu-Indonesia) in 2012-2015.
  - Head of KADIN's Standing Committee for Industrial Policy and Regional Empowerment in 2012-2015.
  - Chairman of AAF-TC#1 Economy in 2013-2015.
  - Book Author: Building the Best Indonesia Business Way (Collaboration with ESQ, Mr. Ary Ginanjar Agustian).
- Tangkang earned a Bachelor of Science degree in Industrial Engineering (1989) from the Bandung Institute of Technology, Indonesia.

### Wednesday Lunch Keynote (Jan. 8, 2014)

#### DR. ROBERT DE SOUZA



#### Executive Director, The Logistics Institute – Asia Pacific, Singapore

Dr. Robert de Souza is the Executive Director and Chief Executive of The Logistics Institute – Asia Pacific. TLI – Asia Pacific is a premier institute based in Singapore nurturing logistics excellence in industry, postgraduate research and education. TLI – Asia Pacific is a ninth-time AFSCA (Asian Freight and Supply Chain Award) winner for the best educational course provider since 2003 and third-time Supply Chain Asia Award for training and education on 2009, 2010, and 2011.

Prior to joining TLI – Asia Pacific, Dr de Souza was Executive Vice President for V3 Systems in the Asia Pacific, Corporate Senior Vice President and Global Chief Knowledge Officer at Viewlocity Inc. and Vice Chairman and CEO of SC21 Pte. Ltd.

Dr. de Souza is a Professor at the Georgia Institute of Technology in USA and a Senior Fellow at the National University of Singapore. He has published extensively and is a member of the Editorial Boards of the International Journal of Computer Integrated Manufacturing and the International Journal of Logistics Research and Applications and SMBNet.

Dr. de Souza is a Chartered Engineer and serves on multiple industry, government and academic committees. Amongst these are most notably: the Resource Panel for the Government Parliamentary Committee (GPC) on Transport, the Advisory Panel of The Chartered Institute of Logistics and Transport, Singapore (CILTS), the IDA RFID Alliance (now part of the National RFID Centre), the IBM Global University Partners Leadership Advisory Board. Dr. de Souza received his Ph.D., M.Sc. and B.Sc. Honours in the United Kingdom.

### Thursday Morning I Keynote Speaker (Jan. 9, 2014)

#### DR. JOHN BLAKEMORE



#### CEO, Blakemore Consulting International, Sydney, Australia Former National President of the Manufacturing Society of Australia

John studied for his first two degrees part-time while working in private industry. In 1966 he was awarded an international fellowship which enabled him to enroll in a PhD which was awarded in 1969 by the University of Newcastle. His earlier part time work was done at the Newcastle University College (UNSW). Later he started his post-doctoral work as a nuclear scientist but quickly moved to research and consulting. John's principal skill is industrial process innovation and performance improvement using a range of methods including lean thinking and his own creative methods. His techniques are the result of numerous study programs and development in Japan, Europe and the USA and training by Harvard staff. He has rescued businesses in distress and innovated numerous new products and processes. Typically his clients show a very significant profit enhancement in 1 year as was the case for Pirelli and Shaw Industries, and many others. John has studied and worked in some of the best companies in the world including Honda, GEC, Canon and Panasonic and consulted to other highly regarded organizations including, Cochlear, Speedo, Meyer, BHP, Bluescope, Wormald, and the CSIRO division of Mathematics and Statistics. Blakemore Consulting international has consulted in 9 countries (China, Japan, Singapore, France, Italy, NZ, Thailand, Vietnam, and the Philippines). In 2007 John was voted as one of the top 10 Innovative Engineers in Australia. He was previously a fellow of the Australian Graduate School of Engineering Innovation, (a consortium of three Australian Universities). Before setting up his company, operating from 1987, John occupied senior executive positions as Chief R&D, GM, Technical Director, and Marketing Director, with international companies and has been an advisor to the Federal Government on R&D manufacturing and engineering and a Director of the AIM, and Reed Business and the Institution of Industrial Engineers. He was a former National President of the Manufacturing Society of Australia. He has authored numerous papers and has written 6 business books, three were highly recommended and the last three were released in 2012.

### Thursday Morning II Keynote Speaker (Jan. 9, 2014)

#### DR. PETRI HELO



#### Professor of Logistics, Department of Production, Faculty of Technology University of Vaasa, Finland

Dr. Petri Helo is a Professor of Industrial Management, Logistics Systems and the Head of Networked Value Systems Research Group at Department of Production, University of Vaasa, Finland. His research addresses the management of logistics systems in supply demand networks and use of IT in operations. Dr. Helo is also partner and board member at Wapice Ltd, a software solution provider of sales configurator systems and mass customization solutions. Additionally, he is visiting professor at Kasetsart University in Thailand.

## Global Engineering Education Distinguished Speakers

### “Readiness and Competence of Engineering Graduates”

Tuesday, January 7, 2014

**Session I Chair: Dr. Cecilia Nembou**, VP, Divine Word University, Port Moresby Campus, Papua New Guinea

09:45 – 10:15, Tuesday, January 7, 2014



**Dr. Ezendu Ariwa**

Professor, Dept. of Computer Science and Technology, University of Bedfordshire, UK

**“Engineering Education in Great Britain: Engineering Education for Sustainability”**

Ezendu holds the position of Professor at University of Bedfordshire, United Kingdom, Faculty of Computer Science & Technology, with speciality in Practice in Computing. He is also a Visiting Professor at Gulf University, Bahrain, Visiting Professor, University of Lagos, Nigeria and Visiting Professor, Kano State Polytechnics, Nigeria as well as Visiting Affiliate of the Green IT Observatory, RIMT University, Australia and Visiting Affiliate of ICT University, USA. He also holds the position of Director - Technical and Non-Executive Director and Research Professor for Enterprise Projects at Sun Bio IT Solutions Pvt. Ltd, India. He is also the Chair for the IEEE Consumer Electronics Chapter, United Kingdom & Republic of Ireland (UKRI) and Chair for the IEEE Broadcast Technology Chapter, UKRI. He is a Senior Member of Institute of Electrical & Electronic Engineers (SMIEEE); Chartered FELLOW of the British Computer Society (CITP, FBCS), Fellow of the Institute of Information Technology Training (FIITT), Fellow of the Higher Education Academy (FHEA) and Fellow of the Royal Society of Arts (FRSA). He is also a member of the Elite Group of The British Computer Society (BCS), member of British Institute of Facilities Management and Fellow of Global Strategic Management, Inc., Michigan, USA and Member of the UK Council for Health Informatics. He is the Coordinator of the Digital Enterprise Research Group (DERG), African Research in Business Group (ARBG) and working with the team to achieve African Business and Enterprise Research Observatory (ABERO) at the London Metropolitan Business School. The ABERO achieved good collaboration with multicultural SMEs in the United Kingdom, with respect to mentoring and working on joint professional development enterprise programmes. He has experience of doctoral research supervision as well as doctoral external examiner for various Universities both in the UK and internationally. He has a good research profile and the Founding Editor-in-Chief of the International Journal of Green Computing (IJGC), Editor-in-Chief of the International Journal of Computing and Digital Systems (IJCDs), Journal of E-Technology, and the Associate Editor of the International Journal of E-Politics and the Associate Editor of International Journal of Distributed Systems and Technologies (IJDST). He is a member of Policy Co-ordination Committee of the International Research Foundation for Development (A Corporation of NGO in special Consultative status with the Economic and Social Council of the United Nations).

10:15 – 10:45, Tuesday, January 7, 2014



**Dr. Damodar Acharya**

Professor, Indian Institute of Technology Kharagpur and Past Director (2007-2012), IITK

**“Industrial Engineering Profession and Education in India”**

Professor Damodar Acharya received his Ph.D. (in 1975) and M. Tech. in IE & OR (in 1972) degrees from IIT, Kharagpur, and B.Sc. (Engineering) degree in Mechanical Engineering with distinction (in 1970) from NIT, Rourkela. Professor Acharya has thirty seven years of diversified experience - twenty seven years of teaching and research experience at IIT, Kharagpur including Director of Indian Institute of Technology Kharagpur from 2007 to 2012, five years of experience in academic administration as Vice-Chancellor, Biju Patnaik University of Technology, Rourkela, and Chairman, All India Council of Technical Education (AICTE), New Delhi. At IIT Kharagpur, he held also several important positions, such as Head of the Department of Industrial Engineering and Management, Chairman of JEE, Dean of Sponsored Research and Industrial Consultancy, and Chairman of Vinod Gupta School of Management. As Director of IIT Kharagpur he is taking several path breaking initiatives both in academics and administrative front to propel his Institute to newer heights. Under his leadership, the Institute has brought remarkable changes in the academic front giving quantum fillip to number of research publications, number of PhDs, number of Patents and Sponsored research earnings. He has proved himself as an individual possessing exceptional academic leadership and administrative skills. As an academician, Professor Acharya has the distinction of supervising more than thirty Ph.D. students, and publishing more than 85 papers in journals of repute. He is a consultant to many world-class companies, such as Tata Steel, General Motors, Hindustan Lever, and Tata Chemicals, and handled projects worth more than Rs.15 crore. His research interest includes operation research, production planning and control, supply chain, and maintenance management. He is a fellow of both Indian National Academy of Engineering and National Academy of Sciences (India), and professional member of ORSI, IE(India), and IIIE.

10:45 – 11:15, Tuesday, January 7, 2014



**Dr. Khalid Hafeez**, Fellow NCGE; SSMBB, EFQM Assessor, CPM; Cert Process Mgr; Cert NLP.

Professor, College of Business Administration  
Management, Marketing and Public Administration  
University of Sharjah, Sharjah, UAE

**“Theory of Core Competence: A Melting Pot for Engineering and Management Education”**

Professor Khalid Hafeez is Professor in Operations Management at the University of Sharjah United Arab Emirates. Before coming to the UAE Professor Hafeez was a tenure track professor and Head of Management system group at the York Management School, University of York UK. Prior to that he has been teaching at the Bradford Management School UK Executive MBA, which has been frequently ranked amongst the top ten in Europe, where

he was also the founding Director for Centre for Entrepreneurship. He has also taught on the Masters, PhD and DBA programs at the Sheffield Business school and Cardiff University UK. In terms of management responsibilities he has served as the Dean of the e-School of Business and Quality Management at the Hamdan Bin Mohammed e University Dubai, Program Director for Executive MBA, Program Director for the MSC Organizational Development and Knowledge Management, and Project Management at the Sheffield Business School. He has served as technology transfer champion for the Yorkshire Universities for 7 years and in recognition of his services for education and community he was awarded Certificate of Merit from the House of Lord UK. Professor Hafeez has completed Executive Education Training programme at the Harvard Business School USA and is also a Certified Six Sigma Master Black Belt, and Certified Project Manager and EFQM European Assessor certified from Brussels and certified NLP trainer. Over the years he has supervised more than 12 PhD students to completion has published widely in key journals such as JORS, IJPE, IJPR and IEEE Engineering Management. Professor Hafeez is an internationally acclaimed researcher with over 900 worldwide citations. His publications in the area of "core competence" which he is going to speak about in this conference (IEOM 2014) have already attracted more than 600 citations.

**Session II Chair: Dr. Kripa Shanker, Professor, Indian Institute of Technology Kanpur, and Former Deputy Director, IIT Kanpur, India**

11:30 – 12:00, Tuesday, January 7, 2014



**Dr. Gulnara Abitova**

Professor, Department of System Analyses and Control  
Eurasian National University, Astana City, Republic of Kazakhstan

**"Engineering Education in Kazakhstan"**

Dr. Abitova holds Master's degree in Cybernetics of Technological Processes from Moscow State University of Steel and Alloys at Moscow (Russian Federation), Ph.D. degree in Automation of Metallurgy Production from National Academic Research Institute of Metallurgy and Enrichment of the Ministry of Education and Science at Almaty (Kazakhstan) and she graduated Postdoctoral Program in Automation and Control from Eurasian National University at Astana (Kazakhstan). She has been an invited to the Computer and Electrical Engineering Department in State University of New York (SUNY) at Binghamton (NY, USA) for studying her research work.

Dr. Abitova is Professor and Researcher in the Department of System Analyses and Control at the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Prior to this current position, she was General Director of the Kazakh Information Technology Research Institute (KITRI, Kazakhstan); Deputy Director of the National Accreditation Center, Deputy Director of the Science Committee (Ministry of Education and Science, Kazakhstan); Department Director of the Postgraduate Studies (Eastern-Kazakhstan State University, Kazakhstan); Research Engineer in the Laboratory of Physical and Chemical Research (East-Kazakhstan Scientific Research Institute for Non-Ferrous Metals, Kazakhstan) and Researcher in the L.N. Gumilyov Eurasian National University (ENU, Kazakhstan). Dr. Abitova was awarded the International Grant from the President of Republic of Kazakhstan – Scholarship for the study abroad at the USA (2011-2012) and the prestigious Diploma from the Administration of President of the Republic of Kazakhstan (OCSE, December 2010), as well as Awards and Diplomas from Minister of Education and Science of Kazakhstan for the Professionalism (2005-2009).

Dr. Abitova was also the National Coordinator of UNESCO's Education for Sustainable Development, Ministry of Education and Science of Kazakhstan (UNESCO-Kazakhstan, 2008-2009), where she worked on the Project of National Report of the Kazakhstan for UNESCO (within the UN Decade of Education for Sustainable Development). The same time she was a member of many Working Groups and Temporary Committee of the Ministry of Education and Science (Kazakhstan, 2003-2012). She has been an invited speaker at the International conferences (IEEE, SPIE, CSDM, (ICUMT) and published more than 30 research articles in the reputed international proceedings on mathematical and engineering sciences at the USA, Canada, France, Turkey, Malaysia, Bulgaria, and Hungary. Her papers became a basis for a chapter of a book published by Springer. She served as the Track Chair in the IEOM 2012 conference at Istanbul (Turkey, 2012).

Dr. Abitova's current research interest includes education and science; management and administration in education, science and ITC; substantial development and ecology; human research; automation and control; control systems and engineering; cybernetics; mathematical modeling; sensors and control devices; designing automation lines; robust control and robust system; cloud technology; development of ITC; cyber security; open source and intelligent system; non-destructive testing technology.

12:00 – 12:30, Tuesday, January 7, 2014



**Dr. Abdul Hakim Halim**

Professor, Manufacturing Systems Research Group  
Department of Industrial Engineering, Faculty of Industrial Technology  
Bandung Institute of Technology  
Bandung, Indonesia

**"Industrial Engineering Education in Indonesia"**

Dr. Abdul Hakim Halim is a Professor at the Department of Industrial Engineering, Faculty of Industrial Technology, Bandung Institute of Technology, Indonesia. Currently he has been appointed as Head of Coordinating Office for Private Higher Education Institutions located in West Java and Banten Provinces which is directly under Director General of Higher Education, Ministry of Education and Culture, Indonesia. Dr. Halim received Ph.D. in Industrial Engineering / Manufacturing Systems from University of Osaka Prefecture, Osaka, Japan. He has published numerous journal and conference papers. His research interests

are manufacturing systems, scheduling, inventory, quality control, and reliability.

12:30 – 13:00, Tuesday, January 7, 2014



**Dr. Amine Bermak**

Professor, Department of Electronic and Computer Engineering  
Hong Kong University of Science and Technology  
Clear Water Bay, Kowloon, Hong Kong

**"Active and Collaborative Learning in the Engineering context"**

Professor Amine Bermak received the Masters and PhD degrees, both in electrical and electronic engineering (microelectronics and Microsystems), from Paul Sabatier University, Toulouse, France in 1994 and 1998, respectively. Over the last decade, Prof. Bermak has acquired a significant academic and industrial experience. He has taught over 20 different courses at the undergraduate and post-graduate levels. He is the recipient of the 2011 University Michael G. Gale Medal for distinguished teaching. Prof. Bermak is also a two-time recipient of the "Engineering School Teaching Excellence Award" in HKUST for 2004 and 2009, respectively. He was also nominated for the 2013 Hong Kong UGC best teacher award. Together with his students, Prof. Bermak has received five distinguished awards, including the "Best student paper award" at IEEE International Symposium on Circuits and systems ISCAS 2010 (the conference featured 1081 papers and the paper received the first prize); the 2004 "IEEE Chester Sall Award"; the IEEE Service Award from IEEE Computer Society and

the "Best Paper Award" at the 2005 International Workshop on System-On-Chip for Real-Time Applications. He has published over 250 articles in journals, book chapters and conference proceedings and designed over 30 chips. He has served on the editorial board of IEEE Transactions on Very Large Scale Integration (VLSI) Systems and the Sensors Journal. He is also currently serving on the editorial board of IEEE Transactions on Biomedical Circuits and Systems and IEEE Transactions on Circuits and Systems II. Prof. Bermak is an IEEE Fellow and IEEE distinguished Lecturer.

**Session III Chair: Dr. Irina Livshits, National Research University of Informational Technologies, Mechanics and optics, Russia**

14:00 – 14:30, Tuesday, January 7, 2014



**Dr. Erik Sundin**

Associate Professor in Sustainable Manufacturing  
Division of Manufacturing Engineering, Department of Management and Engineering  
Linköping University, Sweden

**"Industrial Engineering Education in Europe"**

Dr. Erik Sundin is an associate professor in manufacturing engineering at the Department of Management and Engineering of Linköping University, Sweden. He received Ph.D. in the area of *Product and Process Design for Successful Remanufacturing* and MS in Applied Physics and Electrical Engineering from Linköping University. Most of his research has been focusing around remanufacturing. Recently he is focusing on Sustainable Production and the development of Product/Service Systems (PSS). In remanufacturing Dr. Sundin is a part of a European Union project called CAN-Reman with participating researchers and companies in Germany, Spain and Sweden. The project focuses on find out how remanufacturer could start performing

remanufacturing on valuable components used in the CAN-bus system in cars. In parallel He is also working in research focusing on the development of reuse and recycle flat panel displays to develop equipment for disassembly of used flat panel displays in order to recover valuable components and/or materials. During his Ph.D. research, Dr. Sundin has been analyzing several kinds of remanufacturing facilities in Sweden, Canada and Japan. The companies that have been studied are remanufacturing products such as; toner cartridges, gasoline engines, single-use cameras, brake calipers, and forklift trucks. Also, in the remanufacturing research area he has been involved in starting up the new *Journal of Remanufacturing* (Springer) in which Dr. Sundin is regional editor for European Union together with Professor Daniel Brissaud, University of Grenoble, France. Within the research area of PSS he has started up the international research network called The International PSS Design Research Community which includes researchers from Japan, Germany, Denmark, UK, France and Sweden. More locally Dr. Sundin is a part of ManuServ – Centre for service research in manufacturing industry at Linköping University. He has published numerous journal and conference papers.



14:30 – 15:00, Tuesday, January 7, 2014

**Dr. Eugene Rex L. Jalao**

Assistant Professor, Dept. of Industrial Engineering and Operations Research  
University of the Philippines Diliman, Diliman Quezon City, Philippines

**"Industrial Engineering Education in Philippines"**

Dr. Jalao is an assistant professor of Industrial Engineering at the University of the Philippines Diliman, Department of Industrial Engineering and Operations Research. He obtained his Ph.D. in Industrial Engineering from Arizona State University in 2013. His research interests are in the fields of Decision Support Systems, Business Intelligence, Data Mining and Systems Simulation. Furthermore, he obtained his Masters of Science in Industrial Engineering degree as well as his Bachelor of Science in Industrial Engineering from the University of the Philippines Diliman in 2009 and 2007 respectively. He has five years of work experience

of business analytics both here in the Philippines and in the United States of America, specifically in the Banking, Real Estate, Healthcare, and Information Technology industries. He is also a certified SAP ERP materials management consultant as well as a Matlab certified associate. He was also inducted into the Alpha Phi Mu, Industrial Engineering Honor Society.

15:00 – 15:30, Tuesday, January 7, 2014



**Dr. James C. Chen**

Professor, National Tsing Hua University, Taiwan  
Adjunct Professor, National Taiwan University, Taiwan  
Adjunct Professor, Peking University, China  
Consultant, Pou Chen International Group

**"Industrial Engineering Education and Application in Taiwan"**

James C. Chen is Professor in the Department of Industrial Engineering and Engineering Management at National Tsing-Hua University (NTHU), Taiwan. Prior to his current position, he was Chair Professor in the Department of Industrial Management at National Taiwan University of Science and Technology (NTUST), Professor in the Department of Industrial and Systems Engineering at Chung Yuan Christian University (CYCU), and a researcher at Industrial Technology Research Institute (ITRI), Taiwan. He received a B.S. in Industrial Engineering from NTHU, Taiwan, an M.S. in Manufacturing Systems Engineering, and a Ph.D. in Industrial Engineering, both from the University of Wisconsin-Madison, USA.

Dr. Chen's current research interests include lean production and management, business process reengineering, advanced planning and scheduling, system simulation, and project management. He has been working on university-industry collaboration projects with high tech industries such as semiconductor wafer fabs and Thin Film Transistor Liquid Crystal Display (TFT-LCD) fabs in Taiwan as well as traditional industries such as footwear factories and apparel factories in Taiwan, China, India, Indonesia, Vietnam, Cambodia, and Fiji. He has published academic articles in European Journal of Operational Research, European Journal of Industrial Engineering, International Journal of Management Science (Omega), International Journal of Production Research, Computers and Industrial Engineering, Robotics and Computer-Integrated Manufacturing, Journal of the Society for Information Display, Displays, Applied Mathematical Modeling, and Production Planning and Control. Dr. Chen was awarded IBM Manufacturing Research Graduate Fellowship, Outstanding Teaching Awards at CYCU, Distinguished University-Industry Collaborative Research Award at Chung Hua Picture Tubes, Distinguished Industrial Engineer Award from Chinese Institute of Industrial Engineers (CIIE), Outstanding Research Award at NTUST, Distinguished Intellectual Property and Commercialization Award at NTHU, Distinguished Research Award at NTHU, and Feature Person: Enjoying the International University-Industry Collaboration, Engineering Science and Technology Bulletin, National Science Council, Taiwan.

**Session IV Chair: Dr. Chui-Yu Chiu, National Taipei University of Technology, Taipei, Taiwan**



**Plenary I**

**Dr. Andrew Gung**

Managing Director, Leave a Nest Singapore Pte. Ltd.

15:45 – 16:30, Tuesday, January 7, 2014

Andrew Gung is the Managing Director of Science venture company Leave a Nest Singapore Pte. Ltd. The parent company, Leave a Nest Co. Ltd, is founded by a group of Japanese Postgraduate Students 12yrs ago and is now one of the leading companies for Science and Technology venture businesses. Leave a Nest has also established network with more than 3,500 small industrial companies in Japan in a project to revive manufacturing industry in Tokyo. Dr. Andrew Gung graduated from National University of Singapore with 2nd Upper Class Honours and received a scholarship to do his PhD in Japan. In 2010, after graduating from Tokyo University of Marine Science and Technology in Marine Biotechnology, he joined this innovative company and established the first South East Asia (SEA) Branch. Since then, besides developing business for Leave a Nest, he had been involved in marketing research and product promotion for leading Japanese company (including medical and electronics devices) in SEA. Recently, he is involved in a project to establish a research base in Singapore for major IT Company. Dr Andrew Gung is also a Lecturer for Advance Course Robotics at the Electronics Street (Akihabara) in Tokyo- a 4-year course catered for the children, to inspire the next generation of Engineers. He is currently involved in a project to bring new innovations via technology and research products linking up small industrial companies with overseas partners. Overall, Dr Andrew Gung, specializes in Science Bridge Communication Skills applied to facilitate the advance of Science and Technology via varied means (From education, technology transfer, global business development).

16:30 – 17:15, Tuesday, January 7, 2014



**Plenary II**

**Dr. Abdur Rahim**

Professor, Faculty of Business Administration, University of New Brunswick, Fredericton, NB, Canada  
Visiting Faculty, Dept. of Systems Engineering, King Fahd Univ. of Petroleum and Minerals, Saudi Arabia

**"Industrial Engineering Education in Middle East"**

Dr. Abdur Rahim is a Professor at the Faculty of Business Administration, University of New Brunswick (UNB), Fredericton, Canada. He joined UNB in 1983 and is a member of the Quantitative Methods area. He received his B.Sc. (Hons.), M.Sc in Statistics from the University of Dhaka, D.S. in Operations Research from the University of Rome, M.Sc. in Systems Theory from the University of Ottawa, and Ph.D. in Industrial Engineering from the University of Windsor. He teaches Management Science, Operations Management and TQM in the BBA and MBA programs. Dr. Rahim is a recognized world expert in Quality Control and Quality Management. He has taught a wide range of courses in Universities in Canada, Bangladesh, Malaysia, and Saudi Arabia. He has served as an Associate Editor of the International Journal of Systems Science, Quality Engineering, and Engineering Optimization. He is a member of the Advisory or Editorial boards for Economic Quality Control, the Journal of Quality in Maintenance Engineering, the Journal of Quality Engineering and Technology, and the International Journal of Production Research. Dr. Rahim received the UNB Merit Award in 1992, 1999, 2000, and 2009 for his excellence performance in research, service, and teaching.

# Global Engineering Education Distinguished Speakers

## Wednesday, January 8, 2014

**Session V Chair: Dr. Grace Kanakana**, Tshwane University of Technology, South Africa

09:45 – 10:15, Wednesday, January 8, 2014



**Dr. Ilham Kissani**

Engineering & Management Science, School of Science & Engineering  
Al Akhawayn University, Morocco

**"Industrial Engineering Education in North and Sub-Saharan Africa"**

Professor Ilham Kissani holds an engineer degree in Operations Research from INSEA (Rabat, Morocco); she received a Master in Logistics and Ph.D. in Industrial Engineering from the Faculty of Engineering, Laval University, Quebec City, Canada. Later on, she joined the company of Modellium in Quebec, Canada as consultant in Supply chain management. Professor Kissani has been an active consultant to many private companies like Domtar in Canada and Axia, Natura in Brazil. She subsequently joined the Engineering School at Al Akhawayn University. She also held short term academic positions as a visiting scholar at ESITH (Morocco) She teaches courses in the areas of supply chain management, engineering economics, modeling, optimization, probability and statistics. Her research interests fall in the areas of production processes, Lean and Green

manufacturing processes, and engineering management. She has published articles in Engineering Management Journal and Int. Journal of Supply Chain Management.

10:15 – 10:45, Wednesday, January 8, 2014



**Dr. Jinwoo Park**

Professor, Department of Industrial Engineering  
Seoul National University, South Korea

**"IE / Management Science in Korea"**

Prof. Park's field of interest is in operations management with special interest in job design and the application of information and communication technology. More specifically he has been teaching and doing research in the field of Flexible Manufacturing Systems, Computer Integrated Manufacturing Systems, Enterprise Research Planning Systems, and Supply Chain Planning Systems. Recently he is also interested in the application of RFID and the productivity measurement and management of software development process. Prof. Park graduated Seoul National University in 1974, and KAIST in 1976. After then he had worked for 4 years as project engineer and production planner in Hyundai International, Inc., currently the Doosan Heavy Industries,

Inc. He studied in the Department of IEOR, University of California at Berkeley during 1980-1985 and earned Doctoral degree (D.Eng.) there. Then beginning from 1985 he has been teaching in the Department of Industrial Engineering at the Seoul National University and is a former director and vice president of the Korea Institute of Industrial Engineers ([www.kiie.org](http://www.kiie.org)), and president of the Korea Operations Research and Management Science Society ([www.korms.org](http://www.korms.org)) and the Korea Simulation Society ([www.simulation.or.kr](http://www.simulation.or.kr)). He has taught, consulted and performed projects with such group of companies like Samsung, Hyundai and LG.

10:45 – 11:15, Wednesday, January 8, 2014



**Dr. Edward Chikuni**

Professor, Department of Electrical Power Engineering  
Cape Peninsula University of Technology, Cape Town, South Africa

Professor Chikuni has been an engineering educator for over twenty years in 3 different countries (Zimbabwe, Namibia and South Africa) and 4 Universities (University of Zimbabwe, Namibia University of Science and Technology, University of KwaZulu Natal and Cape Peninsula University of Technology). His industrial experience has spanned over 10 years. He holds a First Class degree in Engineering from the University of Sierra Leone, an MSc from the University of Manchester (UMIST) and a PhD from the University of Wales. He is a Chartered Engineer registered with the Engineering Council of the United Kingdom. He has over 40 scientific articles in peer reviewed international conference proceedings and journals as well as two books and two book chapters. He has been very active in the engineering education fraternity and has been a regular participant at

the International Conference for Engineering Education, and was a convener for one of the conference themes: University Industry collaboration. Almost 10 of his publications are in Engineering Education. He believes very much in capacity building and developing of the youth and the encouragement of women in Engineering. He helped found the IEEE Women In Engineering (WIE) branch at the Namibia University of Science and Technology. He has particular interest in making Engineering more attractive to disadvantaged communities in Africa and his present research is in designing laboratory sets that make practical experience more accessible. Although he has spent most of his working life in Africa he has travelled widely in Europe, USA and parts of Asia and his interactions with his peers during his travels have enhanced his understanding of Education and its importance in National Development.



**Session VI Chair: Dr. Shahrin Mohamed, University Technology Malaysia, Johor, Malaysia**

11:30 – 12:00, Wednesday, January 8, 2014



**Dr. Hongyi SUN**

Associate Professor, Dept. of Systems Engineering & Engineering Management  
City University of Hong Kong, China

***“Culture and Innovation Education for Engineering Students: The PIPE Model at City University of Hong Kong”***

Dr. SUN Hongyi holds a BS in Computer Science from Harbin University of Science and Technology, a Master's degree in Management Engineering from the Harbin Institute of Technology (HIT), both in China, and a Ph.D. in Technology Management from Aalborg University in Denmark. Dr. SUN received a Certificate of Pedagogy in Higher Education from Bergen University in Norway in 1997. He has taught at the Harbin Institute of Technology in China (1986-1990) and the University of Stavanger in Norway (1994-1998). Currently Dr. SUN is an Associate Professor in the Department of Systems Engineering and Engineering Management, City University of Hong Kong, where he also serves as programme leader and founding deputy programme leader of the Engineering Doctorate programme in Engineering Management, EngD (EM). His teaching and research areas include the management of technological innovation, manufacturing/operations strategy, quality management, and innovation education. Dr. SUN resides on the editorial board of the International Journal of Technological Innovation, Entrepreneurship and Technology Management, the International Journal of Learning and Changes and International Journal of Quality and Reliability Management. Dr. SUN has twice been the winner of the Teaching Excellence Award at the City Univ. of Hong Kong and has won several other awards in innovation education His cross-disciplinary PIPE model and his learner-centered approach motivate students to actively acquire a broad range of new knowledge along the innovation process. Dr. SUN's teaching methods, reported in academic conferences and journals, are widely recognized. He is a regular speaker on innovation education and innovation management.

12:00 – 12:30, Wednesday, January 8, 2014



**Dr. Franz-Josef Kahlen, AFAIAA, AIAA SciTech14 GEPC Tech Chair**  
Associate Professor, Department of Mechanical Engineering  
University of Cape Town, Upper Campus, Rondebosch, South Africa

Prof. Franz-Josef Kahlen is an associate professor in mechanical engineering at the University of Cape Town, South Africa. He received Dipl-Ing from RWTH Aachen, Germany, MSc from University of Tennessee, USA and Ph.D. from University of Central Florida, USA. His research areas are manufacturing and operational excellence, systems thinking/problem solving and lasers and photonics. Dr. Kahlen focuses on operational excellence using the principles of lean manufacturing for engineering competency development. Research is underway to understand the human and engineering factors in complex systems and complex system failures, and to identify the lessons learned from such research. He has published about 35 papers in journals and conferences and hold

2 US-patents for a Rapid Manufacturing process together with co-inventors and provisional South African patents.

12:30 – 13:00, Wednesday, January 8, 2014



**Prof. Dr. Shahrin Mohamed**

Chairman of the Society of Engineering Education of Malaysia  
Universiti Teknologi Malaysia, Jahor, Malaysia

***“Engineering Education in the 21st Century: Malaysian Perspectives”***

Prof. Shahrin is the Dean of Civil Engineering Faculty, Universiti Teknologi Malaysia and currently the President, Society of Engineering Education Malaysia. With over 29 years of academic experiences, deeply involved in the planning, managing and assuring the quality academic programmes nationally he is also the Associate Director at the Engineering Accreditation Department, Board of Engineers, Malaysia and involved extensively as an auditor for Malaysian Qualification Agency. He holds B.Eng. (Hons) Civil Engineering, Department of Civil Engineering, University of Liverpool, UK, M. Phil in Structural Engineering, Department of Civil Engineering, University of Newcastle Upon Tyne, UK and PhD in Civil Engineering, Department of Civil Engineering, University of Sheffield, UK. To date he had written four books and more than 60 journals, seminars and conferences papers both at the national and international level. These papers addressed his research findings as well as sharing experiences on the teaching and learning practices. He has been conducting more than 100 lectures/workshops related to Outcome Based Education (OBE), ISO 9000, and Academic Quality Assurance.

**Session Chair: Dr. Tasho Angelov Tashev, Technical University of Sofia, Sofia, Bulgaria****14:00 – 14:30, Wednesday, January 8, 2014****Dr. Ajay K Garg, PE**

Professor, TUT Business School, Faculty of Management Sciences  
Tshwane University of Technology, Pretoria, South Africa

Dr. Ajay Garg obtained Bachelor's and Master's qualifications in first class with distinction from Indian school of Mines Dhanbad, India during the year 1987 (Mining Engineering) and 1990 (Longwall Mine Mechanisation) respectively. He further graduated from FMS, New Delhi with MBA qualification in 1994 and was awarded Doctorate of Business Leadership from SBL, University of South Africa during 2003. He has 25 years of industry, academic and administrative experience. Dr. Garg is currently employed at TUT business school, where he is responsible for teaching Research methodology course and responsible for all Masters and Doctoral research coordination work. The Business School is the largest in terms of post graduate student enrolment at the university. Prior to joining TUT, he set up Mining Engineering department at University of Botswana and also worked for Botswana Government for more than a decade. He has taught several Engineering and management courses at graduate programs and supervised a number of Masters students successfully. Dr. Garg has widely published in

Engineering and Management fields in reputable journals, his publications are spread around the world. He is an Established Researcher, a Rating that he received from NRF (National Research Foundation) of South Africa based on his quality of publications and contributions made. Dr. Garg also advises mineral industry in Africa. Currently he is special advisor to a Canadian based NGO and provides advice to several Central African Governments (DRC, Rwanda, Burundi, Tanzania, etc.) in the mineral sector in the implementation of mineral certification scheme. He was instrumental in the implementation of Kimberley process Certificate Scheme (KPCS) in Botswana and also represents NGOs in committees of KPCS.

**14:30 – 15:00, Wednesday, January 8, 2014****Dr. Riyanarto Sarno**

Professor & Head of Research Laboratory, Informatics Department  
Faculty of Information Technology  
Institut Teknologi Sepuluh Nopember, Surabaya Indonesia 60111

Riyanarto Sarno is Professor and Head of Research Laboratory at the Department of Informatics, Institut Teknologi Sepuluh Nopember, Indonesia. Currently he leads research collaboration with Kumamoto University Japan, Research Center of Indonesia Agriculture Ministry and Higher Education Directorate of Indonesia Education Ministry. He was an Adjunct Professor at the University of New Brunswick Canada, Visiting Professor at University of Toronto, Visiting Professor at Ryerson University, Visiting Professor at University Technology Malaysia and Visiting Professor at Seneca College Toronto. He received Ir. degree in Electrical Engineering from Bandung Institute of Technology in 1983 and Drs. degree in Economics from Padjajaran University in 1985. He earned MScand PhD in Computer Science from the University of Brunswick Canada in 1988 and 1992, respectively. He is currently the head of the Lab-based Education Enterprise Intelligent Systems. His research

and teaching interests include Enterprise Computing, Business-IT Alignment, Business Process Modeling, Process Aware Information Systems and Process Mining.

**15:00 – 15:30, Wednesday, January 8, 2014****Dr. Kurt Junshean Espinosa**

Chair, Department of Computer Science  
University of the Philippines Cebu

Prof. Espinosa is an assistant professor and currently the chairperson of the Department of Computer Science at the University of the Philippines (UP) Cebu. He obtained his Masters in Computer Science from the University of the Philippines Diliman where he was a recipient of the Engineering Research and Development for Technology (ERDT) scholarship. His research interests are intelligent tutoring, sentiment analysis, social network analysis, health informatics, SMS platforms, and ICT for education. He has published and reviewed a number of journals and conference proceedings in those fields. He developed a framework and implementation model for ICT integration in basic education using Delphi methodology. He was part also of a multidisciplinary

research on algorithms for emotion recognition in call centers. Currently, he has ongoing researches on dengue epidemic simulation, crime modelling and prediction, sentiment analysis in social networks, emotion diffusion models, and e-learning. He has taught Machine Learning, Data Structures, and Web Engineering. He is a training consultant of some IT companies in Cebu. Moreover, he has an experience working in banking, finance, and insurance industries of multinational companies. He is also active in the startup community and has previously served the Incubator Manager of UP Cebu Technology Business Incubator - among the Philippines' most successful startup incubators. He is an active member of the Cebu Educational Development Foundation for Information Technology (CEDF-IT).

**Session Chair: Dr. James C. Chen**, Professor, National Tsing Hua University, Taiwan

15:45 – 16:30: Wednesday, January 8, 2014



## Plenary III

**Dr. Bala Bharadvaj**

Leader of Engineering, Operations & Technology for Boeing India  
Managing Director of Boeing Research & Technology-India

Dr. Bala Bharadvaj is currently Boeing's leader of Engineering, Operations & Technology in India. He is also the MD of the Boeing Research & Technology Center in Bangalore. In these roles, he provides leadership to Boeing's Research, Technology and Engineering activities in India, to develop new technologies and develop mutually beneficial partnerships with Academia, Government organizations, and industry.

Bala has been with Boeing since 1987, and worked in Southern California for over twenty years before relocating to India in 2009. He has held various leadership positions in Technology Development, Technology Integration, Engineering, Program Management and Strategic Planning. Prior to joining Boeing, he was a member of the faculty of the Aerospace & Mechanical Engineering at Boston University, Boston.

During his long career in academia and industry, Bala has contributed to a variety of projects spanning analysis, design, lab testing and flight testing. He has (A) developed computational codes for aerodynamic analysis of airplanes and helicopters; (B) held key leadership positions in major NASA-Industry aeronautical initiatives; (C) led teams to integrate new technologies into the C-17 strategic airlifter; and (D) led the development of long-range technology plans for Boeing Defense, Space & Security Systems.

During this journey, Bala has been recognized with several awards, from such organizations as the Sigma Xi Scientific Research Society; National Aeronautics and Space Administration (NASA); Boeing in Long Beach; and the American Society of Engineers of Indian Origin. Bala holds multiple degrees in Engineering and Management: B. Tech. with Distinction in Aeronautical Engineering, from IIT Madras, India; M.S. and Ph.D. degrees in Aerospace Engineering from the Georgia Institute of Technology in the US; and MBA from the University of California at Irvine, California.

Bala is an Associate Fellow of the American Institute of Aeronautics & Astronautics, and a member of Beta-Gamma-Sigma Business Honor Society. He is also an active member of SAEINDIA (where he chairs the Aerospace Board) and NASSCOM Engineering Council.

16:30 – 17:15: Wednesday, January 8, 2014



## Plenary IV

**Dr. Gisele Ragusa**

Associate Professor, Division of Engineering Education  
Viterbi School of Engineering  
Chair, USC STEM Consortium  
University of Southern California, Los Angeles, California, USA

Dr. Ragusa serves as the Associate Director of Education at CREATE. She is an associate professor and the Director of the Center for Outcomes Research and Evaluation. She is jointly appointed in the Rossier School of Education and the Viterbi School of Engineering's Division of Engineering Education. Her research interests and areas of expertise include: teacher education and retention, literacy education, teacher education supervision, content literacy, early childhood special education, deaf education, engineering education as well as assessment and measurement in STEM education. She teaches courses in literacy and language development, courses in learning theory, human development courses, and teacher education research courses. Prior to joining USC Rossier,

Dr. Ragusa held an appointment as an assistant professor in special education and bilingual education at California State University, Northridge in addition to a faculty position at Pacific Oaks College. She has taught in distance learning for more than ten years. She is active in many professional associations in the early childhood, distance learning, engineering education, program evaluation and special and deaf education fields. She has been the principal investigator on several federal grants through the US Department of Education and the National Science Foundation.

## Global Engineering Education

### Thursday, January 9, 2014

**Session IX Chair: Dr. Muhammad Abid**, Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Pakistan

10:15 – 10:40: Thursday, January 9, 2014



**Dr. Tasho Angelov Tashev**

Professor and Dean of the English Language Faculty of Engineering  
Technical University of Sofia, Bulgaria

Dr. Tasho Tashev is professor and dean of the English Language Faculty of Engineering at the Technical University of Sofia, Bulgaria. He structured the Faculty into three Departments: Industrial Engineering, Business Computing, and E-Management. The Faculty provides higher engineering education, recognized in the EU countries. Dr. Tashev is Chair of the annual International Conference "Challenges to the Higher Education and Research in the 21st Century". His research areas are industrial engineering, program assurance of the measuring instruments, intelligent measuring systems. Over the years he has supervised more than 10 Ph.D. students. Dr. Tashev has published in numerous journals and conference papers.

10:40 – 11:05: Thursday, January 9, 2014



**Dr. C. B. Gupta**

Professor, Department of Mathematics  
Birla Institute of Technology & Science (BITS)  
Pilani, India

A recipient of Shiksha Rattan Puraskar 2011, Best Citizens of India award 2011, Glory of India award 2013, listed in Marquis who is who in Science and Technology in the world 2010 and 2013 and listed in top 100 scientists of world in 2012, Dr. C. B. Gupta who is presently working as a Professor in the Department of Mathematics, Birla Institute of Technology and Science, Pilani (India) obtained his Master's degree in Mathematical Statistics and Ph. D. in Operations Research from Kurukshetra University, Kurukshetra. His field of specialization is Applied Statistics, Optimization and Operations Research. A number of students have submitted their thesis/ dissertation on these topics under his supervision. He has published a large number of research papers on these topics in peer reviewed national and international journals of repute. He has authored/ co-authored 12 books on the topics Probability and Statistics, quantitative Methods, Optimization in Operations Research, Advance Discrete Mathematics, Engineering Mathematics I, II III, Advance Mathematics etc. He is also on the editorial board of a number of national and International journals and also reviewer of many national and international journals.

Dr. Gupta is a member on various academic and management committees of many Institutes/ Universities. He has participated in more than 30 national and International conferences in which he has delivered invited talks and chaired technical sessions. He has been member of Rajasthan board of school education and also member of various committees of RPSC Ajmer, UPSC, New Delhi and AICTE, New Delhi etc.

11:05 – 11:30: Thursday, January 9, 2014



**Professor Donald M. Reimer**

Director of Entrepreneurial Programs in College of Engineering  
Lawrence Tech in Southfield, Michigan

#### ***"Entrepreneurship in Engineering Education"***

Donald M. Reimer is currently a fulltime senior lecturer on entrepreneurship and serves as the Director of Entrepreneurial Programs in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs' Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs' Organization Faculty Advisory Council and is a member of the American Society of Engineering Education.

**Session X Chair: Dr. Budi Santosa, Surabaya Institute of Technology (ITS), Indonesia****11:30 – 12:00: Thursday, January 9, 2014****Dr. Abdurazzag Ali Aburas**

Faculty of Engineering and Natural Sciences

International University of Sarajevo, Iidza, Sarajevo, Bosnia and Herzegovina

Abdurazzag Ali Aburas received his Bachelor's degree in Computer Sciences Tripoli University, Tripoli-Libya in 1987. He obtained his Master degree in Computer & Information Technology and PhD in Digital Image Processing from Dundee University and DeMontFort University, UK in 1993 and 1997 respectively. He worked in Jordan and UAE universities for five years and Electrical and Computer Engineering Department, Kulliyah of Engineering, International Islamic University Malaysia. Present time, he is working as Assist. Prof. International University of Sarajevo. He has more than 50 publications in different international conferences and several papers in international journals. He has got two research patents in Image processing filed. Recently, he gives consultation for IT Company as senior software developer. His areas of research interest are Curriculum development, Digital Signal / image / video processing, Coding and Compression, Wavelets, Fractal and Image / Voice Pattern Recognition, Human Computer Interaction, E and M Learning, wireless Communications, Algorithms, Web-applications. He is a member in IEEE, HCI-UK, ARISE and IMA Societies. He was a Member Board of Studies of Engineering Curriculum development (Review and Improvement). Dept of Electrical and Computer Engineering, Faculty of Engineering, International Islamic University Malaysia. He introduced two new course curriculums for HCI (2001) and Programming for Engineering (2008). He is Coordinator of Cloud Computing and Mobile Research Group – CCMRG at IUS present time and Coordinator of Software Engineering Research Group – SERG (2006-2009), IIUM. He has published new book based Engineering Education.

**12:00 – 12:30: Thursday, January 9, 2014****Dr. Muhammad H. Zaman**

Associate Professor, Department of Biomedical Engineering

Associate Chair for Undergraduate Affairs

Associate Director, Kilachand Honors College

Boston University, USA

***"Engineering Education in Africa: Impact for Development and Sustainability"***

Dr. Muhammad H. Zaman is Director of Laboratory of Engineering Education and Development, Associate Professor and Associate Chair of Biomedical Engineering and Associate Director of Kilachand Honors College at Boston University. Prof. Zaman is actively involved in engineering education and curriculum development in resource limited countries. As the co-Director of UN Economic Commission for Africa's Biomedical Engineering Initiative, he is actively involved in creating and sustaining biomedical engineering programs across various institutions in Africa including universities in Kenya, Zambia, South Africa, Ethiopia and Uganda. He has won numerous awards in teaching and educational research, these include awards from IEEE Education Society, IEEE EMBS Young Investigator Award, American Society for Engineering Education and The University of Texas Board of Regents. His work has been profiled by BBC, The New York Times, National Public Radio, Popular Science, Scientific American and others. His research is funded by USAID, UN Economic Commission, NIH, National Science Foundation, Gates Foundation and other international private and public organizations.

**12:30 – 13:00: Thursday, January 9, 2014****Dr. Abdel Magid Hamouda**

Professor and Chairman, Mechanical and Industrial Engineering Department

Qatar University, Qatar

***"Innovation and Entrepreneurship in Higher Education: Status; Challenges and Future Trends"***

Dr. Hamouda joined Qatar University as Professor and Chairman of Mechanical and Industrial Engineering Department in 2006. Prior to this appointment, Dr. Hamouda was holding joint appointments in University Putra Malaysia, at the Faculty of Engineering as well as the Institute of Advanced Technology where he was the founding program manager in computational Science and Engineering. He was also a research manager at the Road Safety Research Centre (RSRC), University Putra Malaysia. Dr. Hamouda is corresponding member for the American Academy of Mechanics (AAM), member of ASME, IEEE, IIE, IMechE; and the Institute of Highway Transportation, UK.

Dr. Hamouda has supervised more than 15 Ph.D. and more than 50 Master degree students (By Research Thesis). Furthermore, he has published over 300 papers of which 120 Journal Publications. He has often been invited as keynote and invited speaker for various conferences, seminars and workshops. He has several US and Malaysian patents, and has edited several conference proceedings. He is editor-in-chief of international journal of virtual technology and multimedia, Deputy Editor in-Chief of Journal Achievements in Materials and Manufacturing Engineering and Editor of Engineering and Applied Sciences Journal. He set in the editorial board of many international journals. His research focuses on advanced design tools, development of novel materials and structures with enhanced performance, lean management and AI.

He and his co-workers have received a number of prestigious awards; Gold Medal at the British Invention Show Alexandra Palace, UK, in 2004 and 2006, Silver Medal and Bronze at the 32nd International Exhibitions on Inventions, New Techniques and Products, Geneva, Switzerland, and another Silver Medal at the 63rd IENA, Nuremberg, Germany. In December 2007, he won the 2nd place at the Arab Business Plan competition in Amman, Jordan. Dr. Hamouda was selected by the Organization of Islamic Countries (OIC) as one of the 200 Top scientists within the OIC courtiers. He Chaired and organized a good number (about 50) of symposium and international conferences in the areas of composite materials and computational mechanics in different parts of the world namely, Ireland, Japan, USA and Malaysia. He is assessor/examiner to academic programs and faculty academic promotion to many universities. Dr. Hamouda is approached regularly by the members of the media for clarification of engineering issues concerning the public safety and invention; to name few Reader's Digest magazine and Women's Weekly manganese.

**Session XI Chair: Dr. Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia**

14:00 – 14:30: Thursday, January 9, 2014



**Dr. Bidyut Kumar Bhattacharyya**

Professor, Mechanical Engineering Department  
 Director, School of Safety & Occupational Health Engineering  
 Bengal Engineering & Science University, Shibpur, Howrah, West Bengal, India

Bidyut Kumar Bhattacharyya received B.Sc from Calcutta University, Kolkata, India, B.E. in Mechanical Engineering from SVR NIT, Surat, MS in Production Engineering from Faculty of Technology, M.S University, Baroda, Gujrat, and Ph.D. from Jadavpur University, Kolkata, India. He has certificate of Training on TQM - Japan Union of Scientist & Engineers (JUSE), Tokyo, Japan. Dr. Bhattacharyya has 8 years industrial experience in M.N.Dastur, Hindustan Motors and TTK Group in Quality Assurance Department. He was visiting faculty at Jadavpur University, Institute of Engineers – India, and Academic Staff College, IOLC, Haldia. Dr. Bhattacharyya co-chaired, 16th International Conference On Industrial Engineering & Engineering Management, China and member of National Sectoral Innovation Council on Occupational Safety and Health (OSH) by the Ministry of Labour and Employment, Government of India. He has provided many keynote speeches. His research areas are Advanced Manufacturing System, Industrial Engineering, Quality & Production Management, Human Resource Management, Operation Research, and Safety & Occupational Health. Dr. Bhattacharyya has supervised many doctoral students and published many conference and journal papers. He is a Member of Academic Council, School of Management Science, Bengal Engineering and Science University, India.

14:30 – 15:00: Thursday, January 9, 2014



**Dr. Ali R. Kaylan**

Professor, Department of Industrial Engineering  
 Chair of the Graduate Program in Engineering and Technology Management  
 Bogazici University, Istanbul, Turkey

**"Industrial Engineering Education in Turkey"**

Ali R. Kaylan is a professor of Industrial Engineering and the Chair of the Engineering and Technology Management graduate program at Bogazici University in Istanbul. After completing his undergraduate studies in 1973 in the Mechanical Engineering Department of Bogazici University, he pursued his graduate studies in the Department of Industrial Engineering and Operations Research at Syracuse University in the U.S.A. He has received his M.S. degree in 1975 and Ph.D. in 1979 both from the same University. He joined the Industrial Engineering Department of Bogazici University in 1979. He was promoted to full professorship in 1990. He has served as the Industrial Engineering Department Chair and the Information Technology Director of the Bogazici University. He was elected as the Engineering Dean for two terms during 2000-2006. During that period, he was a member of the Steering Committee of the Turkish Engineering Deans Council. He was elected as the General Secretary of this Council for the period December 2003 – May 2006. Being a founder

member of the Turkish Association for Evaluation and Accreditation of Engineering Programs, he participates as an evaluator in the accreditation process of Industrial Engineering Programs in Turkey. Prof. Kaylan has also been active in KalDer, the Turkish Quality Society. He was the President of this Society during 2008-2010. Besides, during his membership in the Executive Committee for 12 years, he has served as the Chairman of the National Quality Award Steering Committee, the Head of of the Advisory Board of the Turkish Customer Satisfaction Index and the Head of the Editorial Board for the Turkish quality journal entitled as *Quality First*. He is a founder board member of R&D Engineers and Managers Association.

15:00 – 15:30: Thursday, January 9, 2014



**Dr. Yun-Hae Kim**

Professor, Korea Maritime and Ocean University, Korea  
 Vice-President, Korean Society for Engineering Education, Korea

Yun-Hae Kim is a founder of Asian Conference for Engineering Education (ACEE) and Chair of the 3rd ACEE2013. He holds the position of Professor at the Division of Marine Equipment Engineering, Korea Maritime and Ocean University, Korea, with major in Composite Materials. He is also the Vice-president of the Korean Society for Engineering Education (KSEE). He was a Visiting Professor at National Institute of Standards and Technology (NIST, 1997-1998), U.S.A. and a Visiting Professor, The University of Tokushima (2004-2005), Japan. He was the Coordinator of The First International On-Board Seminar for the Development of Environment-friendly Technology and Secretariat General of International Conference on Marine Engineering funded by Busan Metropolitan City.

He was a Vice-Director of Marine Equipment Research Institute (KMOU), Director of Busan Techno-Park Branch(KMOU), Division Chief (Marine Equipment Engineering)(KMOU), Director of the Innovation Center for Engineering Education, Director of Center of the Teaching and Learning, Chair of the 1st Asian Conference of Engineering Education 2009, Chairmen of the ISMST 2010, Chairmen of the 2nd International On-board Symposium, Editor of the Korean Society of Composite Materials, Vice-president, The Korea Society for Engineering Education (KSEE). He is the Editor-in-Chiefs, International Journal of Ocean Science Engineering (IJOSE), Nano Hybrids, Advanced Engineering Forum, The Korean Society of Ocean Engineering. He is the Editor of Composite Research.

Awards Busan Mayor Prize from Busan Metropolitan City, Prize of The University of Tokushima, Japan, Best Paper Prize, Korean Society of Marine Engineers, Jang, Young-Sil Prize, Best Ministry Award in Korea, Nominated in Marquis Who's who, 2008-2013, Nominated in IBC, UK, Appointed as the 100 Scientist in 2008, IBC, UK, and Innovation Award for Engineering Education, Ministry of Education in 2011.

He is a Chair of the 3rd Asian Conference of Engineering Education 2013(ACEE2013) and he is a Chair of the 7th Advanced Materials Development and Performance (AMDP) 2014. He is the Co-chairs of 2nd International Conference Mechatronics and Control Engineering, ICMCE2013, International Forum on Mechanical and Material Engineering 2013, IFMME2013 and 3rd International Conference on Advanced Engineering Materials and Technology, AEMT2013. International Conference on Sensors, Measurement and Intelligent Materials, ICSMIM2013. He gave Special lecture for the Japanese Students in Mexico, 2006-2007, Keynote speech, 1st Asian Conference on Engineering Education 2009 (ACEE2009), Korea, Special lecture at Dali University, 2010, China, Keynote speech, ISMST 2010, China, Invited lecture at the 2nd International On-Board Symposium, 2010, Japan, Invited lecture at the Korean Society of Composite Materials, 2010, Korea, Special lecture, The University of Tokushima, Summer school, 2010, Japan, Keynote speech, 2nd Asian Conference on Engineering Education 2011 (ACEE2011), Japan, Keynote speech, Nanocon012, 2012, Pune, India, Keynote Speech, IUSWNM2013, Cochin, India, Keynote Speech, National Taiwan University, 2012, Taiwan, Keynote speech, 1st IJSEE2013, Busan, Korea, Keynote speech, 2nd IJSEE2013, Kumamoto, Japan, Keynote speech, IUSWNM2012, 2013, India, Keynote speech, ICMCE2013, 2013, Dalian, China, Keynote speech, IFMME2013, 2013, Guangzhou, China, Keynote speech, AEMT2013, 2013, Zhangjiajie, China, The University of Tokushima, Summer school, 2013, Japan, Keynote speech, ICACME2013, 2013, Beijing, China.

**Session XII Chair: Dr. Bernardo Villarreal, Universidad de Monterrey, Mexico**

15:45 – 16:30: Thursday, January 9, 2014



## Plenary V

**Dr. Paulo Augusto Cauchick Miguel**

Adjunct Professor, Department of Industrial and Systems Engineering  
Federal University of Santa Catarina – UFSC, Brazil

***“Industrial Engineering Education in Brazil: Fast Growing and Future Perspectives”***

Paulo Augusto Cauchick Miguel obtained his PhD in Manufacturing Engineering from the School of Manufacturing and Mechanical Engineering at the University of Birmingham, UK. His industrial experience in Brazil includes working as a manufacturing engineer for Varga/TRW and Bendix/Allied automotive brake system companies. He is an Adjunct Professor at the Department of Industrial and Systems Engineering of the Federal University of Santa Catarina (UFSC) in Florianópolis, Brazil as well as contributes to the Post-graduate Program in Industrial Engineering at the University of São Paulo (USP). He is currently an Associate Editor of Revista Produção. His primary research interests are in the areas of product development management, project management, quality and environmental systems, and engineering education.

16:30 – 17:15: Thursday, January 9, 2014



## Plenary VI

**Ing. Oscar Gamboa**

Director of the M.Sc. Program in Manufacturing Modern Systems  
Technological Institute of Costa Rica

***“Engineering Education in Latin America”***

Oscar Gamboa is a Full Professor (Cathedraticus) at the Technological Institute of Costa Rica, and Director of the M.Sc. Program in Manufacturing Modern Systems. He earned his Bachelor and Master of Science degree in Production Engineering at Tech Institute of Costa Rica and his experience is supported in more than 20 years as a researcher, trainer and consultant in operations planning and scheduling in factories located in North and

Latin America.

# Fourth International Conference on Industrial Engineering and Operations Management (IEOM)

Grand Hyatt Hotel, Bali, Indonesia, January 7 -9, 2014

[www.iiom.org](http://www.iiom.org)

## Overall Conference Program

### January 6, 2014 (Monday)

15:00 – 21:00 Registration

### January 7, 2014 (Tuesday)

07:00 – 17:00 Registration

08:00 – 08:30 **Welcome:** Prof. Dr. Ir. Tri Yogi Yuwono, President, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

08:30 – 09:30 **Opening Keynote:** Dr. Kenneth Musselman, Strategic Collaboration Director, Regenstrief Center for Healthcare Engineering at Purdue University, USA and Past IIE President.

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Tea / Coffee Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Tuesday Lunch **Keynote:** Dr. Nyoman Pujawan, Professor, Department of Industrial Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia.

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

18:00 – 20:00 WELCOME RECEPTION

### January 8, 2014 (Wednesday)

07:00 – 17:00 Registration

08:30 – 09:30 Wednesday Morning **Keynote:** Mr. Made Dana Tangkas, VP of Toyota Motor Asia Pacific Engineering and Manufacturing and Director of PT. Toyota Motor Manufacturing Indonesia

09:30 – 09:45 Break

09:45 – 11:15 Parallel Sessions

11:15 – 11:30 Tea / Coffee Break

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Wednesday Lunch **Keynote:** Dr. Robert de Souza, Executive Director, The Logistics Institute – Asia Pacific, Singapore

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions

19:00 – 23:00 CONFERENCE AWARD DINNER, AND CULTURAL PROGRAMS

### January 9, 2014 (Thursday)

07:00 – 15:00 Registration

08:30 – 09:15 Thursday Morning I **Keynote:** Dr. John Blakemore, CEO, Blakemore Consulting International, Australia and Former National President of the Manufacturing Society of Australia

09:15 – 10:00 Thursday Morning II **Keynote:** Dr. Petri Helo, Professor of Logistics, Department of Production, Faculty of Technology, University of Vaasa, Finland

10:00 – 10:15 Break

10:15 – 11:30 Parallel Sessions

11:30 – 13:00 Parallel Sessions

13:00 – 14:00 Lunch

14:00 – 15:30 Parallel Sessions

15:30 – 15:45 Tea / Coffee Break

15:45 – 17:15 Parallel Sessions



**Technical Program Matrix – IEOM 2014**  
**Grand Hyatt Bali, Indonesia**  
**January 7 – 9, 2014**

**Tuesday, January 7**

Time	ROOM							
	Tabanan I	Tabanan II	Tunjung	Jepun	Bangli I	Bangli II	Rijasa I	Rijasa II
08:30	Opening Keynote: Dr. Kenneth Musselman, Purdue University, USA and Past IIE President, BALLROOM I							
09:45	Global Engineering Education I	Operations Management I	Manufacturing and Design I	Artificial Intelligence I	Quality Control and Management I	Modeling and Simulation I	Case Studies I	Project Management I
11:15	Break							
11:30	Global Engineering Education II	Operations Management II	Manufacturing and Design II	Artificial Intelligence II	Quality Control and Management II	Modeling and Simulation II	Case Studies II	Project Management II
13:00	Lunch Keynote: Dr. Nyoman Pujawan, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia BALLROOM I (Box Lunches Provided)							
14:00	Global Engineering Education III	Operations Management III	Manufacturing and Design III	Facilities Planning	Quality Control and Management III	Modeling and Simulation III	Computer and Information Systems I	Project Management III
15:30	Tea / Coffee Break							
15:45	Global Engineering Education IV	Operations Management IV	Manufacturing and Design IV	E-Business and Engineering Economy	Quality Control and Management IV	Modeling and Simulation IV	Computer and Information Systems II	Construction Management
18:00	WELCOME RECEPTION - Pre-Functional Area							

**Wednesday, January 8**

Time	Tabanan I	Tabanan II	Tunjung	Jepun	Bangli I	Bangli II	Rijasa I	Rijasa II
08:30	Keynote: Mr. Made Dana Tangkas, Toyota Motor Manufacturing Indonesia, BALLROOM I							
09:45	Global Engineering Education V	Operations Management V	Inventory Management I	Engineering Education I	Supply Chain Management I	Modeling and Simulation V	Engineering Management I	Reliability and Maintenance I
11:15	Break							
11:30	Global Engineering Education VI	Operations Research I	Inventory Management II	Engineering Education II	Supply Chain Management II	Modeling and Simulation VI	Engineering Management II	Reliability and Maintenance II
13:00	Lunch Keynote: Dr. Robert de Souza, Executive Director, The Logistics Institute-Asia Pacific, Singapore BALLROOM I (Box Lunches Provided)							
14:00	Global Engineering Education VII	Operations Research II	Inventory Management III	Engineering Education III	Supply Chain Management III	Energy I	Engineering Management III	Reliability and Maintenance III
15:30	Tea / Coffee Break							
15:45	Global Engineering Education VIII	Operations Research III	Inventory Management IV	Student Paper Competition	Supply Chain Management IV	Energy II	Engineering Management IV	Service Systems
18:00	Conference Award Dinner and Cultural Program							

**Thursday, January 9**

Time	Tabanan I	Tabanan II	Tunjung	Jepun	Bangli I	Bangli II	Rijasa I	Rijasa II
08:30	Thursday Morning I Keynote: Dr. John Blakemore, CEO, Blakemore Consulting International, Sydney, Australia, BALLROOM I							
09:15	Thursday Morning II Keynote: Dr. Petri Helo, Professor of Logistics, University of Vaasa, Finland, BALLROOM I							
10:00	Break							
10:15	Global Engineering Education IX	Operations Research IV	Lean and Six Sigma I	Human Factors I	Supply Chain Management V	Sustainability and Green Systems I	Logistics Management I	Healthcare Systems I
11:30	Global Engineering Education X	Production Planning I	Lean and Six Sigma II	Human Factors II	Supply Chain Management VI	Sustainability and Green Systems II	Logistics Management II	Healthcare Systems II
13:00	Lunch: On Your Own							
14:00	Global Engineering Education XI	Production Planning II	Lean and Six Sigma III	Human Factors III	Supply Chain Management VII	Sustainability and Green Systems III	Logistics Management III	Healthcare Systems III
15:30	Tea / Coffee Break							
15:45	Global Engineering Education XII	Production Planning III	Lean and Six Sigma IV	IE/OM in Asia	Supply Chain Management VIII	Sustainability and Green Systems IV	Technology Management	Systems Engineering



**TU 09:45 – 11:15****Artificial Intelligence I****Jepun**

**Session Chair:** Dr. Michael Mutingi, University of Botswana

**ID 264: Implementation of Safety Instrumented Systems by Fuzzy Risk Graph**

Nouara Ouazraoui, Bilal Rabah, Rachid Nait-Said, and Mouloud Bourareche, Laboratory of Research in Industrial Prevention (LRIP), Health and Occupational Safety Institute, University of Batna, Algeria

**ID 271: Cellular Manufacturing through Composite Part Formation: A Genetic Algorithm Approach**

Nirjhar Roy and V.R. Komma, Motilal Nehru National Institute of Technology, Allahabad (U.P.), India

**ID 411: A Comparative Study of Improved Simulation Annealing on Multi-Depot Vehicle Routing Problem with Time Windows**

Subodha Dharmapriya, Asela Kulathunga and Pradeep Jayathilake, University of Moratuwa, Sri Lanka

**ID 500: Implementation of Safety Instrumented Systems Using Fuzzy Risk Graph Method**

Nouara Ouzraoui, Bilal Rabah, Rachid Nait Said, and Mouloud Bourarech, Institute of Health and Occupational Safety, University of Batna, Algeria

**ID 068: Healthcare Staff Scheduling in a Fuzzy Environment: A Fuzzy Genetic Algorithm Approach**

Michael Mutingi, University of Botswana

**TU 09:45 – 11:15****Quality Control and Management I****Bangli I**

**Session Chair:** Dr. Wonjoon Kim, Korea Advanced Institute of Science & Technology (KAIST), South Korea

**ID 106: Optimal Sampling Strategy of Incoming Quality Control in In-Mold Decoration Manufacturing**

Kataoka Hirohiko and Kuo-Hao Chang, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan

**ID 279: Designing a Variables Two-Plan Sampling System with Process Loss Consideration**

Nani Kurniati, and Ruey-Huei Yeh, National Taiwan University of Science and Technology, Taiwan  
Chien-Wei Wu, National Tsing Hua University, Taiwan

**ID 462: Mitigation of WIP Inventory Related Problems at IC Production Line through a Suitable Inspection Sampling Plan**

A.N.M. Karim, and Mohamed Bin Abd. Rahman, International Islamic University Malaysia  
Nornilawati Yosop, Hi-essence Cable Sdn Bhd, Malaysia

**ID 420: Integrating a Modified Desirability Function Approach and Ant Colony Strategy to Solve Two-stage Multiresponse Optimization Problem**

Sasadhar Bera, Indian Institute of Management Ranchi, India  
Indrajit Mukherjeeb, Indian Institute of Technology Bombay, India

**ID 511: Technology Strategy under Technological Convergence Phenomenon: In the Case of Printed Electronics Industry**

Yongrae Cho, Euseok Kim and Wonjoon Kim, Korea Advanced Institute of Science & Technology (KAIST), South Korea

**TU 09:45 – 11:15****Modeling and Simulation I****Bangli II**

**Session Chair:** Dr. Abderrahmane Benbrik, University M'Hamed Bougara, Boumerdes, Algeria

**ID 233: Response Surface Models for Optimization of Wheat Straw-Polypropylene Composite Formulations**

Rois Fatoni, Universitas Muhammadiyah Surakarta, Indonesia  
Ali ElKamel, and Leonardo Simon, University of Waterloo, Canada

**ID 108: Quantile-Based Stochastic Optimization Using Modified Stochastic Nelder-Mead Simplex Method**

Hou-Kuen Lu and Kuo-Hao Chang, National Tsing Hua University, Taiwan

**ID 031: Simulating King Khalid University Outpatient Hospital Pharmacy Queuing System**

Tariq Aziz, King Saud University, Saudi Arabia

**ID 218: Modeling of Radiative Heat Transfer of a real Gas in 2D Enclosure**

Mohammed Cherifi, Siham Laouar-Meftah, and Abderrahmane Benbrik, University M'Hamed Bougara, Boumerdes, Algeria

**TU 09:45 – 11:15****Case Studies I****Rijasa I**

**Session Chair:** Dr. Zanele Mpanza, University of Johannesburg, South Africa

**ID 144: The Application of Queuing Theory in Multi-Stage Production Line**

Muhammad Marsudi, King Abdulaziz University, Saudi Arabia  
Hani Shafeek, Suez Canal University, Egypt

**ID 153: Case Study of Management System Improvement for Plant Construction - User Needs Identification through Field Observation**

Eizaburo Takegami and Takafumi Kawasaki, User Experience Research Department, Hitachi, Ltd., Tokyo, Japan  
Hisako Okada, Global Innovation Project Management Department, Power Systems Company, Hitachi, Ltd., Ibaraki, Japan  
Masatoshi Takada, Nuclear Plant Department, Hitachi Works, Hitachi-GE Nuclear Energy, Ltd., Ibaraki, Japan  
Kazuaki Yamagata, Power Plant Project Management Center, Hitachi ICC Co., Ibaraki, Japan

**ID 240: Towards a Conceptual Model of Team-Based Innovation: Enablers and Obstacles of Innovation Productivity**

Theresa-M. Myskowszky von Myrow, Susanne Mütze-Niewöhner and Sönke Duckwitz, Institute of Industrial Engineering and Ergonomics, RWTH Aachen University, Germany

**ID 382: Religiosity and Customer Satisfaction in Public Sector Of Pakistan: An Empirical Study**

Muhammad Muzammil Tanveer, National University of Sciences & Technology, Islamabad, Pakistan  
Rida Khurshid, Fatima Jinnah Women University, Rawalpindi, Pakistan

**ID 170: Improving Operating Methods in a South African Foundry Company: A Case Study**

Zanele Mpanza and Didier Nyembwe, University of Johannesburg, South Africa

**TU 09:45 – 11:15****Project Management I****Rijasa II**

**Session Chair:** Dr. Stefan Creemers, IESEG School of Management, Lille, France

**ID 143: Proactive R&D Project Scheduling with a Bi-Objective Genetic Algorithm**

Gündüz Ulusoy, and Canan Capa, Sabanci University, Turkey

**ID 154: Application of ELECTRE Method for Sub-Contractor Selection using Interval-Valued Fuzzy Sets - Case Study**

Hassan Hadipour, Azad University, Qazvin, Iran  
Roozbeh Azizmohammadi and Abbas Mahmoudabadi, Payam-e-Noor University, Tehran, Iran  
Mohammad Khoshnoud, Farabi Institute of Higher Education, Karaj, Iran

**ID 565: Implementation of Costs of Quality and Six sigma in a Small Scale Industry**

Rathindra Nath De, Bengal Engineering and Science University, Shibpur, Howrah, West Bengal, India

**ID 289: The Resource-Constrained Project Scheduling Problem with Stochastic Activity Durations**

Stefan Creemers, IESEG School of Management, Lille, France

**11:15 – 11:30 Coffee/Tea Break****PARALLEL SESSION II – TUESDAY (TU), 11:30 – 13:00****TU 11:30****GLOBAL ENGINEERING EDUCATION II****Tabanan I**

**Session Chair:** Dr. Kripa Shanker, Professor, Industrial and Management Engineering Department, Indian Institute of Technology Kanpur, and Former Deputy Director, IIT Kanpur, India

**Dr. Gulnara Abitova**, Professor, Eurasian National University, Kazakhstan, "**Engineering Education in Kazakhstan**"

**Dr. Abdul Hakim Halim**, Bandung Institute of Technology, Indonesia: "**Industrial Engineering Education in Indonesia**"

**Dr. Amine Bermak**, Professor, Hong Kong University of Science and Technology: "**Active and Collaborative Learning in the Engineering context**"

**TU 11:30****Operations Management II****Tabanan II**

**Session Chair:** Dr. Jinwoo Park, Professor, Department of Industrial Engineering, Seoul National University, South Korea

**ID 516: The Impact of Job Stress to Job Satisfaction among Engineers: A Literature Review**

Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia

**ID 390: The Influence of OSH Management System on Firm Competitive Advantage**

Noorliza Karia, Universiti Sains Malaysia, Penang, Malaysia

**ID 381: Investigation into Issues Related to the Productivity of Employees in an Oil and Gas Industry**

Khalida Al Hakmani, Oman Gas Company, Muscat, Oman

Hamdi Bashir, University of Sharjah, United Arab Emirates

**ID 353: An Alternative Heuristics for Bin Packing Problem**

Nurul Afza Hashim, Faridah Zulkipli, Siti Sarah Januri, and S. Sarifah Radiah Shariff, Universiti Teknologi MARA, Malaysia

**TU 11:30****Manufacturing and Design II****Tanjung****Session Chair: Dr. Javier Cruz-Salgado**, Centro de Innovación Aplicada en Tecnologías Competitivas, Guanajuato, México**ID 408: Modeling and Optimization of WEDM Parameters for Surface Finish Using Design of Experiments**

I.K. Chopde, Visvesvaraya National Institute of Technology, India

Chandrashekhar Gogte, Marathwada Institute of Technology, Aurangabad, India

Dhobe Milind, P.E.S. College of Engineering, Aurangabad, India

**ID 137: A Generic Model for Integrated Sales, Product, and Production Configuration**

Linda L. Zhang, IESEG School of Management, France

**ID 310: Modeling an Ergonomic Driving for In-Car Interaction: A Propose Framework**

Nurulhuda Ahmad, Seri Rahayu Kamat, Mohamad Minhat, and Ahmad Yusairi Bani Hashim dan Isa Halim, Universiti Teknikal Malaysia Melaka (UTeM), Malaysia

**ID 071: Kronecker Models Versus Scheffé's Mixture Models**

Javier Cruz-Salgado, Sergio Alonso, and Roberto Zitzumbo, CIATEC, A.C., Guanajuato, México

**TU 11:30****Artificial Intelligence II****Jepun****Session Chair: Dr. Eldon Caldwell Marín**, University of Costa Rica**ID 208: Practical ABC Intelligence Solution for Quadratic Assignment**

Golnar Behzadi and Balan Sundarakani, University of Wollongong in Dubai, United Arab Emirates

**ID 484: Data Mining Based Strategic Decision Making Support Tool**

Kemal Kilic, Sabanci University, Turkey

**ID 363: Bootstrap Approach for Constructing Interval Estimation of Capability Index under Non-Normal Distributions**

Hui-Chuan Chen and Yan-Hung Lee, National Taiwan University of Science and Technology, Taiwan

Chien-Wei Wu, National Tsing Hua University, Taiwan

**ID 378: An Intelligent Mathematical Model in the New Product Development Based on Random Fuzzy Variables**

Mohammad Molani Aghdam, Department of Engineering, Islamic Azad University, Ayatollah Amoli Branch, Amol, Iran

**ID 513: Improving DFR Models for Information Retrieval in Cognitive Contexts by Adjusting the Documents Length Normalization**

Eldon Caldwell Marín, and Mauricio Zamora, University of Costa Rica

Antonio Ferrández Rodríguez, University of Alicante, Spain

**TU 11:30****Quality Control & Management II****Bangli I****Session Chair: Sarina Abdul Halim Lim**, University of Strathclyde, UK**ID 102: A New Variables Sampling System Based on Exact Sampling Distribution**

Jhih-Jia Lin and Shih-Wen Liu, National Taiwan University of Science and Technology, Taiwan

Chien-Wei Wu, National Tsing Hua University, Taiwan

**ID 247: Comparing the Median Run Length (MRL) Performances of the Max-EWMA and Max-DEWMA Control Charts for Skewed Distributions**

Teh Sin Yin, Michael Boon Chong Khoo, and Ker Hsin Ong, Universiti Sains Malaysia

Wei Lin Teoh, Universiti Tunku Abdul Rahman, Perak, Malaysia

**ID 457: A Mahalanobis Taguchi System-based Approach for Correlated Multiple Response Process Monitoring**

Sagar Sikder, Indian Statistical Institute, Mumbai, India

Indrajit Mukherjee, Indian Institute of Technology, Bombay, India

Subhash Chandra Panja, Jadavpur University, Kolkata, India  
 Sasadhar Bera, Indian Institute of Management, Ranchi, India

**ID 434: Improving the Competitiveness of Organizations by Using a Link between Established Quality Management System and Balanced Scorecard**

Štefan Kolumber and Petr Briš, Tomas Bata University in Zlin, Czech Republic

**ID 379: Implementation of Statistical Process Control in the Food Industry: A Systematic Review**

Sarina Abdul Halim Lim, and Jiju Antony, University of Strathclyde, UK

**TU 11:30**

**Modeling and Simulation II**

**Bangli II**

**Session Chair: Dr. Raj Kumar**, Faculty of Management Studies, Banaras Hindu University, U.P., India

**ID 180: Analysis of Delivery and Assembly Operations in a Furniture Company Using Discrete Event Simulation**  
 Mehmet Savsar, Ameen Nadoom, Dalal Al-Muraished, Reem Ibrahim, and Meshari Al-Debasi, Kuwait University, Kuwait

**ID 249: Simulation Modeling and Analysis for Stitching Line of Footwear Industry**

James C. Chen, National Tsing Hua University, Taiwan  
 Aryka Pradhana Putra and Nikita Anggono, National Taiwan University of Science and Technology, Taiwan  
 Jeff. Chen, IET, Pou Chen International Group, Taoyuan, Taiwan  
 Yung-Sheng Su, National Tsing Hua University, Taiwan

**ID 088: Optimization of Box Type Girder of Overhead Crane for Different Spans with Fixed Capacity**

Muhammad Abid and Shahbaz M. Khan, GIK Institute of Engineering Sciences and Technology, Topi, Swabi, Pakistan

**ID 443: The Design & Operating Characteristics of a Flexible Auction Logistics Center (FALC): The Simulation Study**

Xiang TR. Kong, George Q. Huang, and H. Luo, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong, Hong Kong, China

**TU 11:30**

**Case Studies II**

**Rijasa I**

**Session Chair: Sanda Geipele**, Institute of Civil Engineering and Real Estate Economics, Riga Technical University, Latvia

**ID 021: Structural Analysis: Challenges and Opportunities**

Messaoud Saidani and Abdussalam Shibani, Coventry University, UK

**ID 294: A Comparative Analysis of Methanol Production Routes: Synthesis Gas versus Co<sub>2</sub> Hydrogenation**

Camila Ribeiro, UFRJ - Federal University of Rio de Janeiro, Brazil

**ID 538: The Study of Stability Control Systems for the Technological Processes**

Gulnara Abitova, Mamyrbek Beisenbi and Janar Yermekbayeva, Eurasian National University, Astana, Kazakhstan

**ID 568: The Influence of Pinch Type and Pinch Width on Two Handed Pinch Strengths**

Nabeel Mandahawi, Department of Industrial Engineering, The Hashemite University, Zarqa, Jordan

**ID 504: Comprehension of Social Responsibility of Entrepreneurs, Media and Experts: Case Study in Latvia**

Raja Kočanova, Sanda Geipele, and Ineta Geipele, Riga Technical University, Latvia

**TU 11:30**

**Project Management II**

**Rijasa II**

**Session Chair: Hye-Kyung Pang**, Hallym University, South Korea

**ID 070: Application of Delphi Method and Quality Function Deployment on Requirements for Website Development - A Survey of Website Developers in Taiwan**

Gary Y. Chen, and Zhong-Han Yu, Chung Yuan Christian University, Industrial & Systems Engineering, Chung Li, Taiwan  
 Jamie Rogers, University of Texas – Arlington, Industrial & Mfg. Systems Engineering, Arlington, TX, USA

**ID 095: Project Management Performance Measures on Construction Project in Libya**

Nawal Gherbal, and Amrit Sagoo, Coventry University, UK

**ID 551: When We Miss Disruptive Technologies**

Hye-Kyung Pang, Hallym University, South Korea

**13:00 – 14:00 Tuesday Lunch Keynote: Dr. Nyoman Pujawan, Professor, Department of Industrial Engineering, Sepuluh Nopember Institute of Technology, ITS Sukolilo, Surabaya, Indonesia., Ballroom I (Box Lunches Provided)**

**PARALLEL SESSION III – TUESDAY (TU), 11:30 – 13:00**

**TU 14:00**

**GLOBAL ENGINEERING EDUCATION III**

**Tabanan I**

**Session Chair:** Dr. Irina Livshits, National Research University of Informational Technologies, Mechanics and optics, Russia

**Dr. Erik Sundin**, Linköping University, Sweden: "**Industrial Engineering Education in Europe**"

**Dr. Eugene Rex L. Jalao**, University of the Philippines Diliman: "**Industrial Engineering Education in Philippines**"

**Dr. James C. Chen**, National Tsing Hua University, Taiwan: "**Industrial Engineering Education and Application in Taiwan**"

**TU 14:00**

**Operations Management III**

**Tabanan II**

**Session Chair:** Michael Mutingi, University of Botswana

**ID 009: A Facility Layout Selection Model using MACBETH Method**  
Prasad Karande, Government Polytechnic, Mumbai, India

**ID 300: The Development of Simulated Annealing Algorithm for Hybrid Flow Shop Scheduling Problem to Minimize Makespan and Total Tardiness**  
Budi Santosa and Ainur Rofiq, Surabaya Institute of Technology, Indonesia

**ID 120: Assessment of Applying Chaos Theory for Daily Traffic Estimation**  
Abbas Mahmoudabadi, Payam-e-Noor University, Tehran, Iran  
Saeed Andalibi, High Institute of Education and Research in Planning and Management, Tehran, Iran

**ID 075: Intermittent Demand Forecast: Robustness Assessment for Group Method of Data Handling**  
Perna Mishra and Guangbin Huang, Nanyang Technological University, Singapore  
Xue-Ming Yuan, and Truong Ton Hien Duc, Singapore Institute of Manufacturing Technology (SIMTech), Singapore

**ID 365: Location-Routing-Inventory Problem with Transshipment**  
Haliza Ahmad, Pa'ezah Hamzah, Zaitul Anna Melisa Md Yasin and S.Sarifah Radiah Shariff, Centre for Statistical and Decision Science Studies, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia

**TU 14:00**

**Manufacturing and Design III**

**Tanjung**

**Session Chair:** Dr. A.F. Van der Merwe, University of Stellenbosch, South Africa

**ID 444: Modeling and Simulation of Automotive Engine Sub-Assembly for Production Improvement**  
Eno Ludavicius, Nirav Sheth and Parth Patel, Lawrence Technological University, USA

**ID 464: Low-Cost USB-Based Data-Logger for LVDT Sensor**  
Md. Saiful Islam, Md. Liakot Ali, Institute of Information and Communication Technology, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh  
Rifat Zaman, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh  
Zubaer Md Tanvir, Institute of Information and Communication Technology, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

**ID 438: Engineering Education and Regional Economic Development**  
Gerrit Jordaan, Central University of Technology, Free State, Bloemfontein, South Africa

**ID 053: Decision support system for Van-der-Waals forces actuated micro-material handling operations**  
Stephen Matope, and A.F. Van der Merwe, University of Stellenbosch, South Africa

**TU 14:00**

**Facilities Planning**

**Jepun**

**Session Chair:** Andrew Kiekhaefer, John Deere, USA

**ID 495: Layout Design of Multiple Blocks Class-Based Storage Strategy Warehouses**  
Maram I. Shqair, University of Jordan, Amman, Jordan  
Safwan A. Altarazi, German-Jordanian University, Amman, Jordan

**ID 204: Facility Location in a Three-Echelon Supply Chain with Stochastic Demand - A Discrete-Event Simulation Approach**

Hasan Hosseini Nasab and Morteza Elahi, Faculty of Industrial Engineering, Yazd University, Iran  
 Hamed Elahi, Faculty of Industrial Engineering, Sadjad Institute, Mashhad, Khorasan Razavi, Iran

**ID 492: Evaluation of a Medical Center Lab Layout by Applying a Heuristic Algorithm with a Flexible-bay Structure**

Soroor Alkhafaji, Baghdad University, Iraq

**ID 182: Factory Master Planning at John Deere**

Andrew Kiekhaefer, John Deere, USA

**TU 14:00****Quality Control & Management III****Bangli I**

**Session Chair:** Dr. Hendry Raharjo, Chalmers University of Technology, Gothenburg, Sweden

**ID 113: Optimal Sampling Policy in Semiconductor Manufacturing**

Ci-An Rong and Kuo-Hao Chang, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan

**ID 161: Variables Multiple Dependent State Sampling Plans Based on Process Performance Index**

Chien-Wei Wu, and Yen-Wen Chen, National Tsing Hua University, Taiwan

**ID 536: The Concurrent Engineering Method: The Necessity for the Convergence of Research and Education**

Hye-Kyung Pang, Hallym University, South Korea

**ID 235: What can we learn from Swedish Quality Award? An empirical investigation of the causal relationships**

Hendry Raharjo and Henrik Eriksson, Chalmers University of Technology, Gothenburg, Sweden

**TU 14:00****Modeling and Simulation III****Bangli II**

**Session Chair:** Erik S. Chang, National Tsing Hua University, Taiwan

**ID 272: Understanding Dynamics of Green House Gases Impacts on Jakarta's Urban Development Using Model-Based Policy Simulator to Support Policy Making**

Akhmad Hidayatno, Irvanu Rahman, and Ricki Muliadi, University of Indonesia, Jakarta, Indonesia

**ID 026: Optimization of Cutting Speed in Steel Turning**

Ramezan Ali Mahdavinejad, University of Tehran, Iran

**ID 111: The Effects of System Failures in a Robotic Assembly Line- Simulation Modeling and DOE Analysis**

Annamalai Pandian, University of Wisconsin - Stout, USA

**ID 039: Recent Developments in the Field of Magnetic Refrigeration**

Bakhodirzhon Siddikov, Ferris State University, Michigan, USA

**ID 265: Simulation Modeling and Analysis of Line Length and Batch Size in Footwear Factory**

James C. Chen, National Tsing Hua University, Taiwan

Nikita Anggono and Aryka Pradhana Putra, National Taiwan University of Science and Technology, Taiwan

River Chou, IET, Pou Chen International Group, Taoyuan, Taiwan

Erik S. Chang, National Tsing Hua University, Taiwan

**TU 14:00****Computer & Information Systems I****Rijasa I**

**Session Chair:** Dr. Olufolorunsho Oludayo Olugbara, Durban University of Technology, South Africa

**ID 219: Time Interval for Collaborating Multi-Organizational Workflows**

Bambang Jokonowo, and Riyanarto Sarno, Institut Teknologi Sepuluh Nopember, Indonesia

**ID 371: A Study on Under Graduate Students' Internet Usage and Habits**

Murat Durucu, Istanbul Technical University, Turkey

Selcuk Cebi, and Behice Meltem Kahyan, Karadeniz Technical University, Turkey

**ID 489: Interpretive Structural Modeling of the inhibitors of Wireless Control System in Industry**

B. Jayalakshmi, and Pramod. V. R., N.S.S. College of Engineering, India

**ID 451: A Comprehensive Evaluation of Direct and Indirect Network-on-Chip Topologies**

Mehdi Baboli, Nasir Shaikh Husin and Muhammad Nadzir Marsono, Universiti Teknologi Malaysia, Johor Bahru, Malaysia



ID 532: **Mobile Phone APP Software Browsing Behavior using Clustering Analysis**  
Chui-Yu Chiu, Ju-Min Liao and I-Ting Kuo, National Taipei University of Technology, Taipei, Taiwan  
Po-Chou Shih, National Taipei University of Technology, Taipei, Taiwan

**TU 14:00****Project Management III****Rijasa II**

**Session Chair:** Dr. AHM Shamsuzzoha, University of Vaasa, Finland

ID 008: **The Effects of the Project Management Office on Companies Performance – A Case Study on a Project-Oriented Company**  
Shakib Zohrevandi, Payam Noor University of Tehran, Iran

ID 202: **Identification, Evaluation and Classification of Time Delay Risks of Construction Project in Iran**  
Amir Hossein Alavifar, BSTech Engineering Co. Yavari St., Resalat SQ, Tehran Iran  
Shadab Motamedi, UPM University, Serdang, Malaysia

ID 205: **An Approach for Project Scheduling Using PERT/CPM and Petri Nets (PNs) Tools**  
Amer Boushaala, Garyouins University, Libya

ID 029: **Creating `Optimal Teams` through `Transformational Leadership`!**  
S. Asiya Z. Kazmi, Josu takala, and Marja Naaranoja, University of Vaasa, Finland

**15:30 Tea / Coffee Break**
**PARALLEL SESSION IV – TUESDAY (TU), 15:45 – 17:15**
**TU 15:45****GLOBAL ENGINEERING EDUCATION IV****Tabanan I**

**Session Chair:** Dr. Chui-Yu Chiu, National Taipei University of Technology, Taipei, Taiwan

**Plenary I:** Dr. Andrew Gung, Managing Director, Leave a Nest Singapore Pte. Ltd., Singapore

**Plenary II:** Dr. Abdur Rahim, Professor, University of New Brunswick, Fredericton, Canada, and Visiting Faculty, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia:  
*“Industrial Engineering Education in Middle East”*

**TU 15:45****Operations Management IV****Tabanan II**

**Session Chair:** Dr. Khalid Hafeez, University of Sharjah, Sharjah, UAE

ID 076: **The Art of Managing Production Disruptions in Pump Industry through Visual Management**  
Johannes Mapokgole, University of Johannesburg, South Africa

ID 089: **Customer Attrition in Retailing: An Application of Multivariate Adaptive Regression Splines**  
Vera Miguéis, Faculdade de Engenharia da Universidade do Porto, Portugal

ID 099: **Why Shortage Cost is More Suitable for Computing “Pull” Systems While Backorder Cost is Preferred in “Push”**

Alvin Ang, Systems and Engineering Management (SEM), Nanyang Technological University (NTU), Singapore

ID 047: **Calculating the Amount of Annual Financial Saving for Steam Boilers based on its Most Effecting Factors: A Case Study**

Rajab Abdullallah, Tripoli University, Libya  
Nabil Muhaisen, High Institute for Training, Libya

ID 456: **Model of Integrated Production and Delivery Batch Scheduling under JIT Environment to Minimize Inventory Cost**  
Endang Prasetyaningsih, Suprayogi, TMA Ari Samadhi, and Abdul Hakim Halim, Bandung Institute of Technology, Indonesia

**TU 15:45****Manufacturing and Design IV****Tunjung**

**Session Chair:** Dr. Sebastian Reuter, RWTH Aachen University, Dennewartstraße, Aachen, Germany

ID 447: **Cell Loading and Scheduling in Synchronized Manufacturing Cells**  
Gürsel A Sürer, Dyah Ariningtyas Hening and Fatih Yarimoglu, Ohio University, Athens, Ohio, USA

ID 281: **Implementation of Process Conformance to COPC Standards in a Global BPO Company: A Case Study**  
Sunil Sharma and Anuradha R Chetiya, University of Delhi, India

ID 359: **Process Performance Evaluation for Non-normal Distributions**  
Yan-Hung Lee, and Jhih-Jia Lin, National Taiwan University of Science and Technology, Taipei, Taiwan  
Chien-Wei Wu, National Tsing Hua University, Hsinchu, Taiwan

ID 274: **Facing Ramp-Up Challenges in the RoboCup Logistics League**  
Sebastian Reuter, Daniel Ewert, and Sabina Jeschke, RWTH Aachen University, Dennewartstraße, Aachen, Germany

---

**TU 15:45** **E-Business / Engineering Economy** **Jepun**

**Session Chair:** S.M. Tofayel Ahmad, Bangladesh Bank, Dhaka, Bangladesh

ID 038: **Impacts of E-learning systems vis-à-vis Online Education Systems are – Boon or Bane for the Learners?**  
Aftab Alam, and Meraj Salim, King Abdulaziz University, Saudi Arabia

ID 206: **E-shopping Success Dimensions – An Empirical Study in Kuwait**  
Kamel Rouibah, College of Business Administration, Kuwait

ID 192: **A Portfolio Comparison of a Kelly Criterion with Markowitz Model: A Case Study with KOSPI 200**  
Gyutai Kim and Suhee Jung, Chosun University, Kwangju, South Korea

ID 510: **Examining Relationship between Macroeconomic Variables Using Var Approach**  
Imran Arshad, IBA Sukkur, Pakistan

ID 347: **Intranet, A New Approach Communication: Green Banking Aspects in Bangladesh Bank**  
S. M. Tofayel Ahmad, Mohammad Rahat Uddin, Munira Jahan, and Ayasha Noor, Bangladesh Bank, Dhaka, Bangladesh

ID 101: **Robust Power Supply Model for Hybrid Renewable Energy System under Parameter Uncertainty**  
Yi-Ling Tsai and Kuo-Hao Chang, National Tsing Hua University, Taiwan

---

**TU 15:45** **Quality Control & Management IV** **Bangli I**

**Session Chair:** Dr. Omar K. Gnieber, University of Benghazi, Benghazi, Libya

ID 103: **Constructing Variables Resubmitted Sampling Plan for Lot Sentencing Based on the Process Yield Index**  
Shih-Wen Liu, and Shi-Woei Lin, National Taiwan University of Science and Technology, Taipei, Taiwan  
Chien-Wei Wu, National Tsing Hua University, Hsinchu, Taiwan

ID 024: **Assessing Service Quality in Higher Education using SERVQUAL Tool**  
Grace Kanakana, Tshwane University of Technology, South Africa

ID 148: **An Improvement on the Handling Time for Unsymmetrical Product during Visual Inspection: A Case Study**  
Nur Syazwani Abd Suki, and Shahrul Kamaruddin, School of Mechanical Engineering, Universiti Sains Malaysia  
Elmi Abu Bakar, School of Aerospace Engineering, Universiti Sains Malaysia, Penang, Malaysia

ID 323: **Reviewing the Validation of the MBNQA Model**  
Hongyi Sun, Department of Systems Engineering and Engineering Management, City University of Hong Kong, China

ID 398: **Applying Process Capability Analysis in Measuring Clinical Laboratory Quality: A Six Sigma Project**  
Khaled N. El-Hashmi and Omar K. Gnieber, University of Benghazi, Benghazi, Libya

---

**TU 15:45** **Modeling & Simulation IV** **Bangli II**

**Session Chair:** Dr. Mehmet Savsar, Kuwait University, Kuwait

ID 025: **Optimization of ED Machining of SiC Parameters**  
Ramezan Ali Mahdavinejad, University of Tehran, Tehran, Iran

ID 248: **Experimenting Maintenance Strategies using Discrete Event Simulation to Improve Customer Waiting Time at Vehicle Inspection Centre**  
Khibtiyah Ilyas, Azurah A.Samah, and Hairudin Abdul Majid, University Technology Malaysia, Johor, Malaysia

ID 507: **Flood Disaster Planning and Management in Jeddah, Saudi Arabia: A Survey**  
Shougi Suliman Abosuliman, Arun Kumar and Firoz Alam, RMIT University, Melbourne, Australia

**ID 427: Multi-Server System with Multi-Threshold Service Policy**

Fu-Min Chang, Department of Finance, Chaoyang University of Technology, Taichung, Taiwan  
 Jau-Chuan Ke, Department of Applied Statistics, National Taichung University of Science and Technology, Taichung, Taiwan  
 Cheng-Hwai Liou, National Taichung University of Science and Technology, Taichung, Taiwan

**ID 229: Productivity Analysis of a Flexible Manufacturing Cell**

Mehmet Savsar, and Majid Aldaihani, Kuwait University, Kuwait

**TU 15:45****Computer & Information Systems II****Rijasa I**

**Session Chair:** William Eduardo Mosquera Laverde, Universidad Cooperativa De Colombia

**ID 157: An Automated Workflow System Geared Towards Consumer Goods and Services Companies**

Javier D. Fernandez, Department of Industrial Engineering, University Pontificia Bolivariana, Medellin, Antioquia, Colombia

**ID 234: Advertisement about the Activities of Our Company**

Azeez Adeniyi Olateju, Otaland Nig Ltd, Nigeria

**ID 466: Results on the Relationship between the Decision Making the Media and the Management of ICT in Industrial Sector SMES**

William Eduardo Mosquera Laverde, Universidad Cooperativa De Colombia

**ID 547: A Qualitative Study of the Critical Success Factors of ERP System: A Case Study Approach**

Aamir Ijaz, University of the Punjab, Lahore, Pakistan

R. K. Malik, Bahria University, Islamabad, Pakistan

Rab Nawaz Lodhi, COMSATS Institute of Information Technology, Sahiwal, Pakistan

Umie Habiba, National College of Business Administration and Economics, Lahore, Pakistan

Syed Muhammad Irfan, COMSATS Institute of Information Technology, Lahore, Pakistan

**ID 563: MARKCLOUD: Software for Data Confidentiality and Security in Cloud Computing Environments**

Rashidah. Olanrewaju, Saqib Hakak and Othman Khalifa, International Islamic University Malaysia, Kuala Lumpur, Malaysia

**TU 15:45****Construction Management****Rijasa II**

**Session Chair:** M.N. Fars, Department of Industrial Engineering, University of Alexandria, Alexandria, Egypt

**ID 196: Submerged Geotextile Breakwater Construction Modeling**

Amarjit Singh and Jerre Hansbrough, Department of Civil and Environmental Engineering, University of Hawaii at Manoa, Honolulu, HI, USA

**ID 214: Housing Demands & Spatial Preferences of Young Potential First Time Residential Property Buyer in Kuching**

Doh Shu Ing, Faculty of Engineering and Green Technology, Universiti Tunku Abdul Rahman, Kampar, Malaysia

**ID 266: The Performance of Eggshell as Filler in Concrete Mixtures**

Doh Shu Ing, Faculty of Engineering and Green Technology, Universiti Tunku Abdul Rahman, Kampar, Malaysia

**18:00 WELCOME RECEPTION - Pre-Functional Area****IEOM Publication Ethics and Malpractice Statement**

The Industrial Engineering and Operations Management (IEOM) Forum publishes peer-reviewed articles in the field of Industrial Engineering (IE) and Operations Management (OM) to advance the theory and practice as well as to identify major trends in IE and OM areas. The IEOM Forum expects all parties participating in the publication of the Proceedings of the International Conference on Industrial Engineering and Operations Management to commit to our policies of publication ethics. IEOM Forum Publication does not tolerate plagiarism or other unethical behavior. Best practices are followed on ethical matters, errors, and retractions. **Any manuscript that does not meet these standards will be removed from the IEOM publication.**

The international Conference on IEOM has developed the responsibilities for authors, reviewers and our Editorial Board and expects all parties to adhere to these guidelines. It can be found at the following link:

<http://ieom.org/ieom/ethics-malpractice-statement/>  
<http://www.ieom.org/ethics-and-malpractice-statement.pdf>

---

## Wednesday, January 8

---

**08:30 Keynote: Mr. Made Dana Tangkas, Vice President of Toyota Motor Asia Pacific Engineering and Manufacturing and Director of PT. Toyota Motor Manufacturing Indonesia, Ballroom I**

<b>PARALLEL SESSION V – WEDNESDAY (WD), 09:45 – 11:15</b>
---

<b>WD 09:45</b>	<b>GLOBAL ENGINEERING EDUCATION V</b>	<b>Tabanan I</b>
-----------------	---------------------------------------	------------------

**Session Chair: Dr. Grace Kanakana**, Tshwane University of Technology, South Africa

**Dr. Ilham Kissani**, Engineering & Management Science, Al Akhawayn University, Morocco: "Industrial Engineering Education in North and Sub-Saharan Africa"

**Dr. Jinwoo Park**, Department of Industrial Engineering, Seoul National University, South Korea: "IE / Management Science in Korea"

**Dr. Edward Chikuni**, Cape Peninsula University of Technology, Cape Town, South Africa

<b>WD 09:45</b>	<b>Operations Management V</b>	<b>Tabanan II</b>
-----------------	--------------------------------	-------------------

**Session Chair: Dr. Murphy Choy**, School of Information System, Singapore Management University, Singapore

**ID 028: Abrupt Organizational Transformational Process Hinders Collaborative Innovation Initiatives!**  
S. Asiya Z. Kazmi, and Marja Naaranoja, University of Vaasa, Finland

**ID 301: The Development of Hybrid Cross Entropy-Genetic Algorithm for Multi-Product Inventory Ship Routing Problem with Heterogeneous Fleet**  
Budi Santosa and Rita Damayanti, Surabaya Institute of Technology, Indonesia

**ID 433: An Identical Parallel Machine Problem with Maintenance Activity**  
Wen-Chiung Lee, Feng Chia University, Taichung, Taiwan  
Jen-Ya Wang, Hungkuang University, Sha Lu, Taiwan

**ID 391: Investigation of the Performance Characteristics of a Rotary Electronic Tablet Counter**  
Adekunle Jinadu, BCN PLC, Lagos, Nigeria

**ID 416: Real Time Process Compliance Checking using Nomenclature Approach**  
Murphy Choy, Ma Nang Laik and Koo Ping Shung, Singapore Management University, Singapore

<b>WD 09:45</b>	<b>Inventory Management I</b>	<b>Tanjung</b>
-----------------	-------------------------------	----------------

**Session Chair: Dr. Denisa Ferenčíková**, Tomas Bata University in Zlín, Czech Republic

**ID 178: Optimal Lot Sizing and Setup Cost Reduction for Deteriorating Production System**  
Kuo-Lung Hou, Overseas Chinese University, Taichung, Taiwan  
Li-Chiao Lin, National Chinyi University of Technology, Taichung, Taiwan

**ID 185: Inventory Reduction by Applying Inventory Management Tools of a Selected Tannery Factory**  
Mohammad Iqbal and Shibbir Ahmad, Shah Jalal University of Science and Technology, Sylhet, Bangladesh.  
AHM Shamsuzzoha, University of Vaasa, Finland  
M. Roomi, Maxin Ercon Limited, Dhaka, Bangladesh

**ID 242: Inventory Analysis for a Manufacturing/Remanufacturing System under Product Substitution**  
Fethullah Gocer, and S. Sebnem Ahiska, Galatasaray University, Ortakoy, Istanbul, Turkey

**ID 166: Inventory Management in Small and Medium-Sized Manufacturing Companies and Its Main Dilemmas**  
Denisa Ferenčíková, Tomas Bata University in Zlín, Czech Republic

<b>WD 09:45</b>	<b>Engineering Education I</b>	<b>Jepun</b>
-----------------	--------------------------------	--------------

**Session Chair: Dr. Peter Toth**, Obuda University, Budapest, Hungary

**ID 388: Achievement of the Program Outcomes in Outcomes Based Education Implementation: A Meta-Analysis**  
Yuzainee Md Yusoff, Universiti Tenaga Nasional, Malaysia

Norain Farhana Ahmad Fuaad, Ruhizan Bt. Mohammad Yasin and Norngainy Mohd Tawil, Universiti Kebangsaan Malaysia

ID 445: **Missing Data Imputation Method Comparison in Ohio University Student Retention Database**  
Dyah Hening, and David A. Koonce, Ohio University, USA

ID 413: **New Methods for Course Development and Management in Engineering Education**  
Peter Toth and Imre J. Rudas, Obuda University, Budapest, Hungary

ID 509: **Reforms in Engineering Education for Sustainable development: A study on Engineering Education in Bangladesh**  
Mohammad Abdul Mannan and Md. Tanvir Alam, Dhaka University of Engineering & Technology (DUET), Bangladesh

---

**WD 09:45** **Supply Chain Management I** **Bangli I**

**Session Chair:** Dr. Md. Mamun Habib, American International University-Bangladesh (AIUB), Dhaka, Bangladesh

ID 285: **Supply Chain Network Design with Preferential Tariff under Economic Partnership Agreement**  
Kenichi Funaki, and Junko Hosoda, Yokohama Research Laboratory, Hitachi Ltd., Yokohama, Kanagawa, Japan

ID 201: **An Integrated Structural Model for Supply Chain Management Practices (SCMP), Supply Chain Performance Measurement (SCPM) and its impact on Supply Chain Profitability (SCP)**  
Shradha Gawankar, National Institute of Industrial Engineering (NITIE), India

ID 386: **Strategic DSS using a Heuristic Algorithm for Practical Outlet Zones Allocation to Dealers in a Beer Supply Distribution Network**  
Michelle Cheong, Singapore Management University, Singapore

ID 064: **Study of Performance Measurement Practices in Supply Chain Management**  
Hamid Kazemkhanlou, and Hamid Reza Ahadi, Iran University of Science & Technology, Tehran, Iran

ID 421: **Comparative Analysis of Supply Chain Management for Universities through ITESCM Model**  
A.K. Mahbulul Hye, Bishwajit Banik Pathik, Mahmud Habib Zaman, and Md. Mamun Habib, American International University-Bangladesh (AIUB), Dhaka, Bangladesh

---

**WD 09:45** **Modeling & Simulation V** **Bangli II**

**Session Chair:** Ahmed A. Ezzat, Arab Academy for Science, Technology, and Maritime Transport, Alexandria, Egypt

ID 431: **A Standby Redundant System with F-Policy**  
Jau-Chuan Ke, and Chia-Jung Chang, National Taichung University of Science and Technology  
Fu-Min Chang, Chaoyang University of Technology, Taiwan

ID 430: **Efficient Computation of the Area and Length of a Planar Contour Using Digital Elevation Model Data**  
Hiroyuki Goto, Hosei University, Japan  
Yoichi Shimakawa, Salesian Polytechnic, Japan

ID 318: **Prediction Model for Speedy Customer's Category at Pt Telekomunikasi Indonesia, Tbk.**  
Judi Alhilmam and Mochamad Rian M., Telkom University, Bandung, Indonesia

ID 368: **Mathematical Programming based Synthesis of Rice Drying Processes**  
Wongphaka Wongrat, Kasetsart University, Kamphaeng Saen Campus, Thailand  
A. Elkamel, P. L. Douglas, and A. Younes, University of Waterloo, Canada

---

**WD 09:45** **Engineering Management I** **Rijasa I**

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

ID 096: **The Improvements of Positive Quality Planning and Application upon a Live Construction Project**  
Abdussalam Shibani, Coventry University, UK

ID 151: **A Framework for the Development of Halal Food Products in Malaysia**  
Norizah Mohamad, Univesiti Sains Malaysia

ID 174: **The Using Of Elements of Lean Production to Increase Efficiency and Competitiveness of Organizations in the Engineering Industry**  
Jana Petru, Tomas Zlamal, Robert Cep, and Marek Pavlica, VSB-Technical University of Ostrava, Czech Republic

ID 361: **Implementation Model and Roadmap of Manufacturing Process Standardization**  
Kwai Sang Chin, City University of Hong Kong

ID 079: **The Wafer Breakages Reduction using Kaizen Approach**  
Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia

**WD 09:45**

**Reliability and Maintainability I**

**Rijasa II**

**Session Chair:** Dr. Shey-Huei Sheu, Providence University, National Taiwan University of Science and Technology, Taiwan

ID 069: **System Reliability Optimization: A Fuzzy Genetic Algorithm Approach**  
Michael Mutingi, University of Botswana

ID 046: **Design of Operational Risk Measurement in Consumer Finance Companies with Risk Breakdown Structure (RBS) and Analytic Network Process (ANP) Methods**

Armin Darmawan, Hasanuddin University, Makassar, Indonesia  
Farizal and Dendi Prajadhiana, University of Indonesia, Depok, Indonesia

ID 370: **Contactless Smart Card Based Prepaid Gas Metering System**

Md. Liakot Ali, Mohammad Imam Hasan Bin Asad, and Md. Saiful Islam, Institute of Information and Communication Technology (IICT), Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 522: **Reconstruction of free form Surfaces in Reverse Engineering Technology Applications**

Tahseen Fadhil Abbas, and Ahmed Abdullah Ebraheem, University of Technology, Baghdad, Iraq  
Norain Farhana Ahmad Fuaad, Universiti Kebangsaan Malaysia

ID 471: **Extend Optimal Replacement Model for a Deteriorating Systems with Inspections**

Shey-Huei Sheu, Providence University, National Taiwan University of Science and Technology, Taiwan  
Hsin-Nan Tsai, and Fu-Kwun Wang, National Taiwan University of Science and Technology, Taiwan

**11:15 – 11:30 Coffee/Tea Break**

**PARALLEL SESSION VI – WEDNESDAY (WD), 11:30 – 13:00**

**WD 11:30**

**GLOBAL ENGINEERING EDUCATION VI**

**Tabanan I**

**Session Chair:** Dr. Shahrin Mohamed, Universiti Teknologi Malaysia, Johor Baru, Malaysia

**Dr. Hongyi Sun**, Department of Systems Engineering and Engineering Management, City University of Hong Kong: **“Culture and Innovation Education for Engineering Students: The PIPE Model at City University of Hong Kong”**

**Dr. Franz-Josef Kahlen**, University of Cape Town, Upper Campus, Rondebosch, South Africa

**Dr. Shahrin Mohamed**, Chairman of the Society of Engineering Education of Malaysia, Chairman, Engineering Deans Council, Universiti Teknologi Malaysia: **“Engineering Education in the 21st Century: Malaysian Perspectives”**

**WD 11:30**

**Operations Research I**

**Tabanan II**

**Session Chair:** Dr. Chaimongkol Limpianchob, Kasetsart University, Nakhonpathom, Thailand

ID 298: **Hybrid Differential Evolution and Bottleneck Heuristic Algorithm to Solve Bi-Objective Hybrid Flow Shop Scheduling Unrelated Parallel Machines Problem**

Riza Auliya Rahman, Budi Santosa, and Stefanus Eko Wiratno, Sepuluh Nopember Institute of Technology, Surabaya, Indonesia

ID 437: **Formulation of Integer Programming Model for Balancing and Scheduling of Production Line Having Shared Resources**

H. M. Emrul Kays, A.N.M. Karim, M. Abdesselam, Muataz H.F. Al Hazza, International Islamic University Malaysia  
R.A. Sarker, University of New South Wales Canberra

ID 288: **MIP-based Models vs. Heuristics Algorithms for Solving Dynamic Network Flow Problems**

Mojahid Saeed Osman, King Fahd University of Petroleum & Minerals, Saudi Arabia  
Bala Ram, North Carolina A&T State University, USA  
Mohamed Ismail Wahab, Ryerson University, Canada

**ID 082: An Evaluation Model for Tourism-Sport Dealer Selection**

Shahryar Sorooshian, Ahmad Nazif Bin Noor Kamar, and Ali Asghar Jomah Adham, University Malaysia Pahang, Malaysia

**ID 312: Mixed Integer Linear Programming Approaches to Aggregate Production Planning in Tangerine Supply Chain**

Chaimongkol Limpianchob, and Kamphaeng Saen, Kasetsart University, Nakhonpathom, Thailand

**WD 11:30****Inventory Management II****Tanjung**

**Session Chair:** Shao Hung Goh, SIM University, Singapore

**ID 237: A Single Manufacturer - A Single Buyer Partnership with Vendor Managed Inventory and Consignment**

Docki Saraswati, Trisakti University, Indonesia

Andi Cakravastia, Bermawi P. Iskandar, A. Hakim Hallim, Institut Teknologi Bandung, Indonesia

**ID 246: A Technical Note on the Single-Vendor Multi-Buyer Integrated Inventory Supply Chain Problem**

Md Abdul Hoque, University Brunei Darussalam

**ID 527: Analysis of WIP Inventory Control and Simulation of KANBAN System within Wiring Harness Company**

Ilham Kissani, Al Akhawayn University, Morocco

**ID 449: System Dynamics Model for a Stackelberg Game in Multi-Echelon Inventory System under Demand and Supply Uncertainty**

Noviana Dwi Harsiwi, and Elisa Kusriani, Menghadiri Universitas Islam Indonesia, Central Java Province, Indonesia

**ID 194: Centralizing Slow-Moving Items in a Retail Network – A Case Study**

Shao Hung Goh, and Boon Lian Lim, SIM University, Singapore

**WD 11:30****Engineering Education II****Jepun**

**Session Chair:** Dr. Markéta Gregušová, VŠB – Technical University of Ostrava, Czech Republic

**ID 316: Integrating ICT for Improving Training Methodology of a Training Academy: Bangladesh Perspective**

S.M. Tofayel Ahmad, Bangladesh Bank, Dhaka, Bangladesh

Md. Abdur Rashid and Md. Kamrul Hasan, National Academy for Planning and Development (NAPD), Dhaka, Bangladesh

**ID 042: Systematic Development of a Multifunctional Passenger Safety Bar Based on a Reference Project Frame for Student Design Projects**

Karl Hain, Christoph Rappl, and Josef Süß, DIT - Deggendorf Institute of Technology, Deggendorf, Bavaria, Germany

Walter Steininger, Max Streicher GmbH & Co. KG, Deggendorf, Germany

**ID 544: Teaching Process Safety - Development of a HAZOP Study Teaching Module**

Gordon McKay, John Barford, and David C.W. Hui, Hong Kong University of Science and Technology, China

**ID 191: Expanding Knowledge of Students of Engineering Using E-Learning Support in Education**

Markéta Gregušová, Ivana Šajdlerová, Martin Zuskáč, Jan Kedroň, and Jana Petrů, VŠB – Technical University of Ostrava, Czech Republic

**WD 11:30****Supply Chain Management II****Bangli I**

**Session Chair:** Dr. Suhaiza Zailani, Universiti Malaya, Kuala Lumpur, Malaysia

**ID 336: A Mathematical Model for Waste Management in Reverse Supply Chain**

Zahra Hosseini and Iraj Mahdavi, Mazandaran University of Science and Technology, Babol, Iran

Hamed Fazlollahtabar, Iran University of Science and Technology, Tehran, Iran, Niroogostar Energy Optimization Research Group, Tehran, Iran

**ID 341: Managing Multiple Outsourcing: Service Quality and Volume Issues**

Samar Mukhopadhyay, Sungkyunkwan University-GSB, South Korea

**ID 534: Worm Optimization: A Novel Optimization Algorithm Inspired by C. Elegans**

Jean-Paul Arnaout, Gulf University for Science & Technology, Kuwait

**ID 357: Investigation on Service Supply Chain in Private Hospitals Malaysia**

Suhaiza Zailani, Universiti Malaya, Kuala Lumpur, Malaysia

**ID 407: Analysis of Different Criteria for Workload Balancing on Identical Parallel Machines**

Ouazene Yassine, Yalaoui Farouk, Chahade Hicham, and Yalaoui Alice, Université de Technologie de Troyes, France

**WD 11:30****Modeling and Simulation IV****Bangli II**

**Session Chair:** Dr. M. Y. El-Sharkh, University of South Alabama, Mobile, USA

**ID 086: Implementing the Lean Six Sigma Framework in a Small Medium Enterprise (SME) – A Case Study in a Printing Company**

Joshua Chan Ren Jie, Shahrul Kamaruddin, and Ishak Abd Azid, Universiti Sains Malaysia, Malaysia

**ID 293: Development of Simulation Game for Teaching Strategic and Operational Aspect of Production System**

Akhmad Hidayatno, Armand Omar Moeis, and Rama Raditya, University of Indonesia, Depok, Indonesia

**ID 263: Parameter-based Preemptive Objective Optimization for Solar Cell Manufacturing**

Li-Chih Wang<sup>1,3</sup> Yu-Jie Wong<sup>1</sup>, Tzu-Li Chen<sup>2</sup>, Shuo-Tsung Chen<sup>3</sup>, Cheng-Mei Li<sup>1</sup>

<sup>1</sup>Department of Industrial Engineering and Enterprise information, Tunghai University, Taichung, Taiwan

<sup>2</sup>Department of Information Management, Fu Jen Catholic University, New Taipei City, Taiwan

<sup>3</sup>Tunghai Green Energy Development and Management Institute (TGEI), Tunghai University, Taichung, Taiwan

**ID 503: DMFC Models and Applications: A Literature Survey, Part I**

S. Patrabansh, M. Y. El-Sharkh, and M. Alam, University of South Alabama, Mobile, USA

*Exhibitor Presentation:* **Continuous Improvement in Your Business**

David Chen, Advent2 Labs, Singapore

**WD 11:30****Engineering Management II****Rijasa I**

**Session Chair:** Dr. Paulo Augusto Cauchick Miguel, Federal University of Santa Catarina – UFSC, Brazil

**ID 329: Project Timor: A study to the industrial development of East Timor**

Mário Cabral, Universidade Nacional de Timor Lorosa'e, Timor-Leste, East Timor

Filipa Vieira, University of Minho/CGIT, Portugal

Cristina S. Rodrigues, University of Minho/ Centre Algoritmi, Portugal

**ID 273: Assembly Line Balancing Problem of Sewing Lines in Garment Industry**

James C. Chen, National Tsing Hua University, Hsinchu, Taiwan

Chun-Chieh Chen, Chung Yuan Christian University, Chung Li, Taiwan

Yi-Jhen Lin, Chun-Ju Lin, and Tiffany Y. Chen, National Tsing Hua University, Hsinchu, Taiwan

**ID 105: Potential Saving for Steam Boilers Based on the Impact of Most Affecting Factors: A Case Study**

Rajab Abdullallah Hokoma, Tripoli University, Libya

**ID 048: Corrosion Management in Gas Treating Plants: Comparison between Contamination Build Up and Corrosion Rate of DEA and MDEA**

Reza Mesgarian National Iranian Gas Company (NIGC), Tehran, Iran

**ID 167: Modular Design And Production: An Investigation on Practices in an Assembler and Two First-Tier Suppliers**

Edilson Alves Rodrigues, University of São Paulo – USP, Brazil

José Antonio Carnevalli, Pontifical Catholic University of Campinas – PUCAMP, Brazil

Paulo Augusto Cauchick Miguel, Federal University of Santa Catarina – UFSC, Brazil

**WD 11:30****Reliability and Maintenance II****Rijasa II**

**Session Chair:** Dr. A. John Rajan, Sathyabama University, Rajeeve Gandhi Salai, Chennai, India

**ID 109: Deriving Failure and Effect Data of New Machinery for Preventive Maintenance (PM) Planning – A Case Study**

Ernie Illyani Basri, Universiti Sains Malaysia

**ID 115: Establishments of Predictive Maintenance Control Limits**

Omar M Elmabrouk and Mariam Azraga, University of Benghazi, Faculty of Engg. Industrial and Manufacturing System

Engineering Department, Benghazi Libya

**ID 128: Early Warning System in Preventive Maintenance as a Solution to Reduce Maintenance Cost**

Tiena Gustina Amran, and Leonardus Sujarto, Industrial Engineering Department, University of Trisakti, Jakarta, Indonesia

**ID 267: Implementation of Computerized Maintenance Management System in National Iranian Gas Company and Sub-Companies**

Saeed Salimi Beni, National Iranian Gas Company, Tehran, Iran



**ID 406: Exploring Maintenance Management in Service Sector: A Case Study**

Noorliza Karia, School of Management, Universiti Sains Malaysia, Penang, Malaysia

Muhammad Hasmi Abu Hassan Asaari, School of Distance Education, Universiti Sains Malaysia, Penang, Malaysia

Hayati Saleh, School of Housing, Building and Planning, Universiti Sains Malaysia, Penang, Malaysia

**ID 215: Maintenance Policy for Repairable Systems Using Minimal Repair and Replacement under Warranty**

Minjae Park, College of Business Administration, Hongik University, Seoul, South Korea

Ki Mun Jung, Department of Informational Statistics, Kyungsoong University, Busan, South Korea

Dong Ho Park, Department of Information and Statistics, Hallym University, Chuncheon, South Korea

**13:00 – 14:00 Wednesday Lunch Keynote: Dr. Robert de Souza, Executive Director / Chief Executive, The Logistics Institute – Asia Pacific, Ballroom I (Box Lunches Provided)**

<b>PARALLEL SESSION VII – WEDNESDAY (WD), 14:00 – 15:30</b>
---

**WD 14:00****GLOBAL ENGINEERING EDUCATION VII****Tabanan I****Session Chair:** Dr. Tasho Angelov Tashev, Technical University of Sofia, Sofia, Bulgaria**Dr. Ajay K Garg**, Faculty of Management Sciences, Tshwane University of Technology, Pretoria, South Africa**Dr. Rianarto Sarno**, Professor & Head of Research Laboratory, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia**Dr. Kurt Junshean Espinosa**, Chair, Department of Computer Science, University of the Philippines Cebu, Philippines**WD 14:00****Operations Research II****Tabanan II****Session Chair:** Dr. Roel Leus, KU Leuven, Belgium**ID 041: Determining the Slack Capacity of Testers thru Model Simulation**

Herwina Richelle C. Andres, Operations Research – Test Equipment Engineering, Analog Devices, Inc., Cavite, Philippines

**ID 054: A Product-Mix Optimization of Commercial Chicken Feeds in a Feed Milling Company Using Linear Programming (LP) Model**

Ronald Mariano, Colegio De San Juan De Letran, Philippines

**ID 119: Development and Evaluation of an Industrial Prototype for Supporting Real-Time Train Dispatching Decisions**

D'Ariano Andrea, D'Ariano Paolo, Samà Marcella, and Pacciarelli Dario, Università degli Studi Roma Tre, Rome, Italy

**ID 139: Reducibility of Some Multi-criteria Scheduling Problems to Bi-criteria Scheduling Problems**

Saheed Akande, Department of Mechanical and Mechatronics Engineering, Afe Babalola University, Ado-Ekiti, Nigeria

Ayodeji. E. Oluleye, Department of Industrial and Production Engineering University of Ibadan, Ibadan, Nigeria

E.O. Oyetunji, Department of Mechanical Engineering, Lagos State University, Lagos, Nigeria

**ID 367: A Robust Constrained Markov Decision Process Model for Admission Control in a Single Server Queue**

Erim Kardes, Department of Industrial Engineering, Ozyegin University, Istanbul, Turkey

**ID 188: Some Comments on Discrete Sequential Search with Group Activities**

Kris Coolen, Fabrice Talla Nobibon, and Roel Leus, KU Leuven, Belgium

**WD 14:00****Inventory Management III****Tunjung****Session Chair:** Shintaro Urabe, Hitachi Solutions East Japan, Ltd., Japan**ID 482: An Optimal Inventory Policy of Tools with Maximum Allowable Lifespan**

Bhaba R. Sarker, Department of Mechanical &amp; Industrial Engineering, Louisiana State University, Baton Rouge, LA, USA

Cun Rong Li, School of Mechanical &amp; Electronics Engineering, Wuhan University of Technology, Wuhan City, P. R. China

Hui Zhi Yi, Department of Mechanical &amp; Industrial Engineering, Louisiana State University, Baton Rouge, LA, USA

**ID 383: An Inventory Model with Demand Dependent Replenishment Rate for Damageable Items and Shortage**

Mehdi Sajadifar and Ahmad Mavaji, University of Science and Culture, Poonak, Tehran, Iran

**ID 127: Designing a New Particle Swarm Optimization for Make-with-Buy Inventory Model**

Saeed Poormoaid, Georgia Institute of Technology, Atlanta, USA

Mahsa Yavari, Ferdowsi University of Mashhad, Mashhad, Iran

ID 528: **Optimizing Inventory and Pricing Decisions for a Periodic-Review System with Batch Ordering**  
Ying Wei, Jinan University, China

ID 369: **Best Practice for Inventory Optimization based on a Restructuring of the Organization, its Functions, and its Information Systems**  
Shintaro Urabe and Masaru Tezuka, Hitachi Solutions East Japan, Ltd., Japan

**WD 14:00**

**Engineering Education III**

**Jepun**

**Session Chair:** Rathindra Nath De, Bengal Engineering and Science University, West Bengal, India

ID 446: **Soft Skills through Engineering Cooperative Education Settings at Ohio University**  
Dyah Hening, and David A. Koonce, Ohio University, Athens, OH, USA

ID 468: **Effect of Work Instruction Support Device on Equipment Maintenance and Inspection**  
Seiko Taki, Chiba Institute of Technology, Japan  
Yasuhiro Kajihara, Tokyo Metropolitan University, Hino, Tokyo, Japan

ID 483: **Engineering Education in the 21st Century: Malaysian Perspectives**  
Shahrin Mohammad, University Technology Malaysia

ID 531: **Implementing the Participant-Center Learning Program for the Engineering Classes in Taiwan – A Case Study**  
JrJung Lyu, Department of Industrial and Information Management, National Cheng Kung University, Taiwan

ID 549: **Application of ISO –9001: 2008 Academic Institutions**  
Rathindra Nath De, Bengal Engineering and Science University, West Bengal, India

**WD 14:00**

**Supply Chain Management III**

**Bangli I**

**Session Chair:** Dr. Olufemi Adetunji, University of Pretoria, South Africa

ID 091: **Two Step Approach of Structural Equation Modeling in Supply Chain Practices (Case Study: Indonesian Small Medium Enterprises)**  
James C. Chen, National Tsing-Hua University, Taiwan  
Imam Baihaqi, Institute of Technology Sepuluh Nopember, Indonesia  
Nadia Aulia Arifin, National Tsing-Hua University, Taiwan

ID 152: **Market Adaptive Supply Chain Model of Global Automotive Players**  
Gwang Seok Kim, Dong Uk Jeon, Sun Hoon Kim, and Young Hoon Lee, Yonsei University, South Korea

ID 557: **A Strategic Procurement Concept for Physical Asset Management Framework**  
Ananda S Jeeva, and Ahmed Mohsen Salem Baswaid, Curtin Business School, Curtin University, Perth, Australia

ID 049: **Vulnerability as a Relevant Supply Chain Attribute for SCOR**  
Olufemi Adetunji, University of Pretoria, South Africa

*Exhibitor Presentation: Technologies from SME in Japan*  
Andrew Gung, Leave a Nest Co. Ltd., Singapore

**WD 14:00**

**Energy I**

**Bangli II**

**Session Chair:** Mohammadreza Joulaie, National Iranian Oil Company, Iran

ID 132: **Energy Source from Hydrogen Production via Methane Dry Reforming**  
Anis H. Fakeeha, Ahmed A. Ibrahim, Muhammad Awais Naeem and Ahmed S. Al-Fatesh, King Saud University, Saudi Arabia

ID 017: **Priority of Reduction Ways for Heating Systems in Yazd greenhouse**  
Alimohammad Rezai, Yazd Gas Co, Iran  
Hasan Hkadem Zare, Mohammadhosien Abooei, and Ali Mostafaeipour, Yazd Universit, Iran  
Fatemah Hakimi, NIOFDC, Iran

ID 255: **Electricity Generation under Multiple Pollutant Consideration**  
I. Alhajri, College of Technological Studies, Kuwait  
M. Elsholkami, S. Giovinazzo, R. D'Souza, E. Kim, and A. Elkamel, University of Waterloo, Canada

ID 283: **Electricity Generation Schemes in Java-Bali Power System with Co<sub>2</sub> Reduction Considerations**  
Farizal and Wenty Eka Septia, University of Indonesia, Depok, West Java, Indonesia

**WD 14:00****Engineering Management III****Rijasa I**

**Session Chair:** Dr. Mohan Khond, College of Engineering, Pune, India

ID 112: **The Strategy Making Process in Petroleum Reservoir Management in Iranian National Oil Company (NIOC): The Case of Soroosh Field**

Amirnaser Akhavan, Petroleum Dept, AmirKabir University of Technology, Iran

Nooshin Jabbari, University of Malaya, Kuala Lumpur, Malaysia

M. Hamdi, Advanced Manufacturing and Material Processing (AMMP) Centre, University of Malaya, and Department of Engineering Design & Manufacture, Faculty of Engineering, University of Malaya

ID 156: **Self-restrain or Discrimination: Participation of Women Engineers in India**

Seema Singh, Department of Economics, Delhi Technological University, Delhi, India

ID 176: **The Marketing Mix Strategy in Influence to the Competitive Advantage**

Endang Chumaidiyah, Faculty of Industrial Engineering, Institut Teknologi Telkom, Bandung, Indonesia

ID 040: **Stimulate Active Participation and Managing Change**

Mohan Khond, College of Engineering, Pune, India

**WD 14:00****Reliability and Maintenance III****Rijasa II**

**Session Chair:** Dr. Armin Darmawan, Department of Industrial Engineering, Hasanuddin University, Makassar, Indonesia

ID 023: **Seismic Image Analysis and Pattern Recognition to Identify Fault Diagnosis for Roller Bearing**

Madhavendra Saxena, Singhanian University, Rajasthan, India

R.P. Rajoria, and Manoj Gupta, Poornima University, India

ID 087: **Nonlinear Mixed-Effects Models for Multiple Repairable Systems**

Byeong Min Mun, and Suk Joo Bae, Hanyang University, South Korea

ID 100: **Application of Reliability Centered Maintenance (RCM) in Electrical Power Plant**

Hadi Abou-Chakra and Ramzi Fayad, Department of Industrial Engineering – Beirut Arab University, Lebanon

ID 290: **Risk-Averse Newsboy Problem with Incomplete Demand Information**

Bibhas Giri, Department of Mathematics, Jadavpur University, Kolkata, India

ID 410: **The Effects of Salvage Value on the Age-Replacement Policy under Renewing Warranty**

Yu-Hung Chien, Department of Applied Statistics, National Taichung University of Science and Technology, Taichung, Taiwan

Fu-Min Chang, Department of Finance, Chaoyang University of Technology, Taichung, Taiwan

Tzu-Hsin Liu, Department of Statistics and Informatics Science, Providence University, Taichung, Taiwan

ID 189: **Design of Operational Risk Measurement in Consumer Finance Companies with Risk Breakdown Structure (RBS) and Analytic Network Process (ANP) Methods**

Armin Darmawan, Department of Industrial Engineering, Hasanuddin University, Makassar, Indonesia

Farizal and Dendi Prajadhiana, Department of Industrial Engineering, University of Indonesia, Depok, Indonesia

**15:30 – 15:45****Coffee/Tea Break**

### PARALLEL SESSION VIII – WEDNESDAY (WD), 15:45 – 17:15

**WD 15:45****GLOBAL ENGINEERING EDUCATION IX****Tabanan I**

**Session Chair:** Dr. James C. Chen, Professor, National Tsing Hua University, Taiwan

**Plenary III:** Dr. Bala Bharadvaj, Leader of Engineering, Operations & Technology for Boeing India  
Managing Director of Boeing Research & Technology-India

**Plenary IV:** Dr. Gisele Ragusa, University of Southern California, USA and Chair, USC STEM Consortium

**WD 15:45****Operations Research III****Tabanan II**

**Session Chair:** Dr. Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University, Koganei, Tokyo, Japan

**ID 160: Application of Memetic Algorithm to Solve Truck and Trailer Routing Problems**

Seyedmehdi Mirmohammadsadeghi and Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia

**ID 107: Green Supply Chain Design with Multi-Objective Optimization**

Kartina Puji Nurjanni, Postgraduate Program of Industrial Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia, Algoritmi Research Center, Department of Production and System, Universidade do Minho, Portugal  
 Maria S. Carvalho and Lino A.A.F da Costa, Department of Production and System, Universidade do Minho, Portugal  
 Fauzun, Department of Mechanical and Industrial Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia

**ID 258: An Efficient Heuristic Approach for Solving the Transportation Problem**

Mohamed Silmi Juman Zeinul Abdeen, University Brunei Darussalam, Brunei

**ID 403: Unrelated Parallel Machines Scheduling Problem with Sequence Dependent Setup Times**

Vahid Kayvanfar, Amirkabir University of Technology, Iran

**ID 356: Fuzzy Data Envelopment Analysis to Rank Engineering Design Requirements in QFD**

Mohammad Molani Aghdam, Islamic Azad University, Ayatollah Amoli Branch, Amol, Iran

**ID 136: Multi-Objective Path Search Problem Based on an Extended Network Model**

Yoichi Shimakawa, Salesian Polytechnic, Japan  
 Hiroki Osuna, Advanced Course in Production Systems Engineering, Salesian Polytechnic, Machida, Tokyo, Japan  
 Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic, Machida, Tokyo, Japan  
 Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University, Koganei, Tokyo, Japan

**WD 15:45****Inventory Management IV****Tanjung**

**Session Chair:** Dr. Salvatore Miranda, University of Salerno, Italy

**ID 055: Optimal Ordering Policies for Inventory Problems in Supermarkets under Stochastic Demand: A Case Study of Milk Powder Product**

Kizito Mubiru, Makerere University, Uganda

**ID 268: Excess and Obsolete Raw Materials Depletion through Reworks: A Case Study in Wastes Minimization**

James C. Chen, National Tsing-Hua University, Taiwan  
 Ana M. Chiu, National Tsing-Hua University, Taiwan

**ID 448: Comparative Analysis of AHP-TOPSIS and GA-TOPSIS Methods for Selection of Raw Materials in Textile Industries**

D. K. Banwet and Abhijit Majumdar, Department of Management Studies, Indian Institute of Technology Delhi, India

**ID 441: Optimal Economic Manufacturing Quantity and Process Target for Imperfect Systems**

Salih Duffuaa, King Fahd University of Petroleum and Minerals, Saudi Arabia

**ID 552: Stock Dependent Inventory Models under Parameter Uncertainty**

Sungmook Lim, Department of Business Administration, Korea University, Sejong, South Korea

**ID 141: Experimental Analysis of the Applicability of a Multi-Item Constrained EOQ Calculation Algorithm**

Salvatore Miranda, M. Fera, R. Iannone, and S. Riemma, University of Salerno, Fisciano, Italy

**WD 15:45****STUDENT PAPER COMPETITION****Jepun**

**Session Chair:** Dr. M. Anwar Hossain, The University of Southern Mississippi, USA

**ID 179: Selecting a Material for an Electroplating Process Using AHP and VIKOR Multi Attribute Decision Making Method**

Md. Masud Kaoser, Md. Mamunur Rashid and Sharif Ahmed, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

**ID 245: Designing the Milk Collection Network using Integrated Location Routing Approach**

Mohammad Mumtaz, Naiman Jalil and Kamran Ali Chatha, LUMS, Pakistan  
 Mohammad Kamran Mumtaz, Center for Entrepreneurial Development, Institute of Business Administration (IBA), Karachi, Pakistan & Suleman Dawood School of Business, Lahore University of Management Sciences (LUMS), DHA, Lahore, Pakistan

Muhammad Naiman Jalil and Kamran Ali Chatha, Suleman Dawood School of Business, Lahore University of Management Sciences (LUMS), DHA, Lahore, Pakistan

**ID 555: Routing Lean and Green in UPS**

Patricia Molina, Katia Nuñez, Lorena Cantú and Bernardo Villarreal, Universidad de Monterrey, San Pedro Garza García, México

**ID 553: Increasing Customer Satisfaction through Lean Distribution**

Etna Muraira, Lorena Garzafox and Bernardo Villarreal, Departamento de Ingeniería, Universidad de Monterrey, San Pedro Garza García, México

**ID 155: An Adaptive Neuro-Fuzzy Inference System based Algorithm for Long Term Demand Forecasting of Natural Gas Consumption**

Ferdous Sarwar, Md. Mamunur Rashid, and Debasish Ghosh, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

**ID 499: Optimization using Simulation of Traffic Light Signal Timings**

Ahmed A. Ezzat, Hala A. Farouk, Khaled S. El-Kilany, and Ahmed F. Abdelmoniem, Arab Academy for Science, Technology, and Maritime Transport, Abu Kir Campus, Alexandria, Egypt

**WD 15:45**

**Supply Chain Management IV**

**Bangli I**

**Session Chair:** Dr. Mark Goh, The Logistics Institute – Asia Pacific, and Business School, National University of Singapore

**ID 142: The Joint Contract to Coordinate Price Changing Apparel Supply Chain**

Qi Xu and Wenjie Wang, Donghua University, China

**ID 236: Managing Upstream Supply Chain Complexity based on Purchasing Competencies: A Framework**

Alhasan Y. Hakami, School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia  
Linda L. Zhang, Department of Management, IESEG School Management, Lille, France  
Arun Kumar, School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Victoria, Australia

**ID 450: Developing a New Model of Supplier Selection and Lot-Sizing for Disruptive Supply Chain Network under Uncertainty**

Zahra Safaei Koletia, Kamran Jamali Firouzabadia, and Seyed Ahmad Sheibat Alhamdya, Department of Industrial Management, Islamic Azad University Firoozkooh Branch, Iran  
Navid Sahebjamnia, School of Industrial and Systems Engineering, College of Engineering, University of Tehran, Tehran, Iran

**ID 146: A Methodology to Optimize Value in Discrete Event Simulation for Production Planning and Control Studies**

NurAmalina Muhammad, and Chin JengFeng, University Sains Malaysia

**ID 548: Mitigating Inefficiencies in Humanitarian Supply Chains**

Colin Wee, Robert de Souza, and Jonas Stumpf, The Logistics Institute – Asia Pacific, National University of Singapore  
Mark Goh, The Logistics Institute – Asia Pacific, and Business School, National University of Singapore

**WD 15:45**

**Energy II**

**Bangli II**

**Session Chair:** Dr. Ali Jawad, University of Technology, Bagdad, Iraq

**ID 395: Wind Energy Analysis for 3 Prospective Coastal Sites of Bangladesh**

Muhammad Mahbubul Alam, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh  
A. K. Azad, Sylhet Gas Field Limited, Sylhet, Bangladesh

**ID 051: Policy implications on industrial energy consumption: a DEA Sensitivity approach**

Oludolapo A. Olanrewaju, Department of Industrial Engineering, Tshwane University of Technology, Pretoria, South Africa  
Adisa A. Jimoh, Department of Electrical Engineering Tshwane University of Technology, Pretoria, South Africa  
Pulek A. Kholopane, Department of Industrial Engineering University of Johannesburg, South Africa

**ID 065: A Framework for Evaluation of Renewable Energy Policies**

Michael Mutingi, University of Botswana, Botswana  
Charles Mbohwa, University of Johannesburg, South Africa

**ID 066: Alternative Fuels for Cement Industry: A Review**

Rajendra Patil, Universal College of Engineering and Research Pune, India

ID 526: **Investigation of Mixture formation and Flame Development in Emulsified Biodiesel Burner Combustion**  
Amir Khalid, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

ID 400: **The Technical – Economic Investigation of LNG Projects and Natural Gas in the South Pars Gas Complex (Iran) Based On Cost – Benefit Model**  
Mohammadreza Joulaie, National Iranian Oil Company, Iran

**WD 15:45**

**Engineering Management IV**

**Rijasa I**

**Session Chair:** Dr. Cristina S. Rodrigues, University of Minho/ Centre Algoritmi, Portugal

ID 376: **Industrial Engineering and Operations Management Perspectives: A Research in Management on Leadership**  
Khristian Edi Nugroho Soebandrija, Bina Nusantara University, Indonesia

ID 355: **ABM (Activity-Based Management) System Implementation in Islamic Azad University of I.R. Iran**  
Milad Ziaeiian, Reza Kiani Mavi and Gohar Rahmani, Islamic Azad University, Qazvin Branch, Qazvi, Iran

ID 425: **Documentary Analysis of Professionalization and Certification Processes - Case Study: Certification of Professional Engineering in Colombia**  
Oscar Vasquez Bernal, National Distance Open University (UNAD), Bogotá, Colombia

ID 401: **How can We Develop a Risk Management Plan for Our Organization?**  
Rujee Charupash, Sirindhron College of Public Health KhonKaen, Thailand

ID 330: **Project Empreede TIMOR. How to promote entrepreneurship among students?**  
Tomas Xavier, National University of East Timor  
Filipa Vieira, University of Minho/CGIT, Portugal  
Cristina S. Rodrigues, University of Minho/ Centre Algoritmi, Portugal

**WD 15:45**

**Service Systems**

**Rijasa II**

**Session Chair:** Dr. Elkanah Oyetunji, Department of Mechanical Engineering, Lagos State University, Nigeria

ID 486: **On Servitization and Maintenance of Diamond Press Machines**  
Joe Amadi-Echendu, University of Pretoria, South Africa

ID 209: **On the Airport Check-In Counter Allocation Problem – A Stochastic Dynamic Programming Approach Supported By Empirical Data**  
Mahmut Parlar, McMaster University, Canada  
Brian Rodrigues, and Sharafali Moosa, Singapore Management University, Singapore

ID 459: **Perspectives from Technology Acceptance Model on consumers' Adoption of IPTV Service: An Empirical Research in Taiwan**  
JrJung Lyu, Fan-Kuei Chiou, and Chia-Wen Chen, National Cheng Kung University, Tainan City, Taiwan

ID 169: **Comparison of Service Quality of Two Commercial Banks in Upper East Region of Ghana**  
E. O. Oyetunji, Department of Mechanical Engineering, Lagos State University, Nigeria  
B. B. Baguri and A. E. Otis, Department of Computer Science University for Development Studies, Ghana

**18:00 – 21:00 Conference Award Dinner and Cultural Program**

---

**Thursday, January 9**


---

**08:30 – 09:15 Thursday Morning Keynote I: Dr. John Blakemore, CEO, Blakemore Consulting International, Australia and Former National President of the Manufacturing Society of Australia**

**09:15 – 10:00 Thursday Morning Keynote II: Dr. Petri Helo, Professor of Logistics, Department of Production, Faculty of Technology, University of Vaasa, Finland**

**10:00 – 10:15 Break**

<b>PARALLEL SESSION IX – THURSDAY (TH), 10:15 – 11:30</b>
---

**TH 10:15**

**GLOBAL ENGINEERING EDUCATION IX**

**Tabanan I**

**Session Chair: Dr. Muhammad Abid**, Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Pakistan

**Dr. Atanas I. Lazarov**, Professor Emeritus, Technical University of Sofia, Bulgaria

**Dr. C. B. Gupta**, Birla Institute of Technology & Science, Pilani, India

**Professor Donald Reimer**, Director of Entrepreneurial Programs, Lawrence Technological University, Michigan, USA:  
**“Entrepreneurship in Engineering Education”**

**TH 10:15**

**Operations Research IV**

**Tabanan II**

**Session Chair: Rene Estember**, Mapua Institute of Technology, Philippines

**ID 498: Optimization Model for the Dairy Sector**

Javier D. Fernandez and Beatriz Angel, University Pontificia Bolivariana, Medellín, Antioquia, Colombia

**ID 496: A Genetic Algorithm Based Solution Approach for the Time Dependent Vehicle Routing Problem**

M. Selçuk Korkmaz, Marmara University, Engineering Management Program, Istanbul, Turkey

Serol Bulkan, Marmara University, Industrial Eng. Dept., Istanbul, Turkey

Ekrem Duman, Ozyegin University, Industrial Eng. Dept., Istanbul, Turkey

**ID 452: Reliability-based Measures of a System with an Unreliable Repairman with Geometric Reneging Under Threshold-based Recovery Policy**

Dong-Yuh Yang and Zong-Ru Wu, National Taipei College of Business, Taipei, Taiwan

Cheng-Hwai Liou, National Taichung University of Science and Technology, Taichung, Taiwan

**ID 221: A Framework on the Administrative Decision Model for Resource Loading**

Rene Estember, Mapua Institute of Technology, Philippines

**TH 10:15**

**Lean and Six Sigma I**

**Tunjung**

**Session Chair: Dr. Nihal Erginel**, Anadolu University, İki Eylül Campus, Eskisehir, Turkey

**ID 004: To What Degree Is Sustainability Practiced In South African Paper Manufacturing Companies?**

Johannes Mapokgole, University of Johannesburg, South Africa

**ID 158: Silhouette Image-based Technique for Flexible Printed Circuit (FPC) Models for Automated Visual Inspection.**

Nurul Aida Harun, Universiti Sains Malaysia

**ID 013: A TOC-OEE Based Scheme to Improve Productivity**

Bernardo Villarreal, and Nancy López, Universidad de Monterrey, Mexico

**ID 543: Why Lean Six Sigma Matters for Next-Gen ERP?**

Anil Kumar Saini, University School of Management Studies, India

Rashmi Jha, Gitarattan International Business School (GIBS), Affiliated to Guru Gobind Singh Indraprastha University, India

Aman Jha, Kalinga Institute of Industrial technology, India

**ID 546: Reduce the Failure Rate of the Screwing Process with Six Sigma Approach**

Nihal Erginel and Aytac Hasirci, Industrial engineering Department, Anadolu University, İki Eylül Campus, Eskisehir, Turkey

**TH 10:15****Human Factors I****Jepun**

**Session Chair:** Dr. Eui Park, North Carolina A&T State University, USA

ID 343: **A Predictive Model of the Severity of Musculoskeletal Disorders among Poultry Layer Workers**  
Ma. Janice Gumasing, and Leslie Ann Francisco, Mapua Institute of Technology, Philippines

ID 296: **A Kinetikk Study: Understanding Hand and Finger Motion Whilst Squeezing Bottles**  
Seri Rahayu Kamat, Department of Manufacturing Management, University Technical Malaysia Malacca  
Alaster Yoxall, Sheffield Hallam University, Sheffield, United Kingdom

ID 554: **Psychological Service Quality Analysis: A Cross-Cultural Approach**  
Hye-Kyung Pang, Hallym University, South Korea

ID 303: **The Prevalence of Work Related Musculoskeletal Disorders among Workers Performing Industrial Repetitive Tasks in the Automotive Manufacturing Companies**  
Nurhayati Mohd Nur, Siti Zawiah Md Dawal and Mahidzal Dahari, University of Malaya, Kuala Lumpur, Malaysia

ID 061: **Understanding Physician's Decision Making in Trauma Centers**  
Policarpos deMattos, Eui Park, and Daniel Miller, North Carolina A&T State University, USA

**TH 10:15****Supply Chain Management V****Bangli I**

**Session Chair:** Dr. Hikmet Erbiyik, Department of the Industrial Engineering, University of Yalova, Turkey

ID 278: **The Supply Chain Design in Japan's Auto Industry**  
Yong Yin, Yamagata University, Kojirakawa-machi, Yamagata-shi, Japan  
ChenGuang Liu, Institute for Manufacturing, University of Cambridge, Cambridge, United Kingdom  
Ikou Kaku, Faculty of Environmental and Information studies, Tokyo City University, Japan

ID 295: **Benchmarking C2C Performance Approach for Supply Chains: A Colombian Case Study**  
Juan Pablo Escorcía, Department of Industrial Engineering, Universidad Autonoma Del Caribe, Barranquilla, Colombia  
Rene A. Amaya, Department of Industrial Engineering, Universidad Del Norte, Barranquilla, Colombia

ID 454: **Empty Containers Repositioning in South African Seaports**  
RD Al-Rikabi, Olufemi Adetunji and VSS Yadavalli, University of Pretoria, South Africa

ID 491: **A Case Study about Retailing Market of Industrial Sector in Turkey**  
Ayşenur Erdil, University of Marmara, Faculty of Engineering, Department of the Industrial Engineering, University of Yalova, Faculty of Engineering, Department of the Industrial Engineering, Turkey  
Mehtap Erdil, University of Marmara, Faculty of Engineering, Department of the Environment Engineering, Turkey  
Hikmet Erbiyik, University of Yalova, Faculty of Engineering, Department of the Industrial Engineering, Turkey

**TH 10:15****Sustainability and Green Systems I****Bangli II**

**Session Chair:** Dr. Md. Ataur Rahman, International Islamic University Malaysia, Kuala Lumpur, Malaysia

ID 428: **An Exploratory Study on "Enviroprenurial" Value Chain: A Conceptual Framework for Malaysian Small and Medium Enterprises**  
Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia, Jhor, Malaysia

ID 480: **Study on Key Factors of Adopting Sustainable Supply Chain Management in Indonesia**  
Caroline Himadewi Santoso, Jinshyang Roan, and Jei-Zheng Wu, Soochow University, Taipei, Taiwan

ID 490: **New Indicator System for Evaluation of Land Use Efficiency**  
Armands Auziņš, Sanda Geipele, and Ineta Geipele, Riga Technical University, Riga, Latvia

ID 394: **On Sustainability of it Service Business in India: A Financial Operation Perspective**  
Jagadish Kundu, Cognizant, India

ID 562: **Noble Evaporative Battery Thermal Management System for EVs/HEVs**  
Ataur Rahman, Helmi Ahmed and MNA Hawlader, International Islamic University Malaysia, Kuala Lumpur, Malaysia



**TH 10:15****Logistics Management I****Rijasa I**

**Session Chair:** Dr. Jekka Subramanian Gnanasekaran, K.L.N. College of Information Technology, Tamil Nadu, India

**ID 183: Stochastic Optimization for Procurement of International Shipping Services**

Sang Hwa Song, Graduate School of Logistics, Incheon National University, South Korea  
 Taesu Cheong, Department of Industrial and Systems Engineering, National University of Singapore, Singapore  
 Byungjun Song, KTNET, South Korea

**ID 387: Determining Optimum Route and Load Transfers in a Multiple Route-based Flat Rate Transportation Problem**

Ketut Gita Ayu, Nike Septivani, and Verola Lollyta, Bina Nusantara University, Jakarta, Indonesia

**ID 424: TUT Student Bus Transport System: A Case Study**

Venessa Ranjit, Tshwane University of Technology, South Africa

**ID 429: Planning of Oil Distribution Network with Artificial Intelligence Techniques**

Malinga Borukgama, Subodha Dharmapriya, Asiri Senasinghe and Asela Kulathunga, Sri Lanka

**TH 10:15****Healthcare Systems I****Rijasa II**

**Session Chair:** Victoria Jordan, University of Texas MD Anderson Cancer Center, USA

**ID 193: Developing a Total Quality Management Framework for the Healthcare Organizations**

Abdulsattar Al-Ali, Department of Management, The World Islamic University for Sciences & Education, Amman, Jordan

**ID 165: Benchmarking hospital services: an application of the Data Envelopment Analysis technique**

Ana S. Camanho, and Isabel M. Horta, Faculdade de Engenharia da Universidade do Porto, Portugal  
 Maria C. Portela, Universidade Católica Portuguesa, Porto, Portugal

**ID 177: Factors Influencing the Sustainability of Results Following Lean Projects in Healthcare Environments**

Stéphanie Desmeules and Denis Lagacé, Université du Québec à Trois-Rivières, Québec, Canada

**ID 222: Transforming Healthcare Using Systems Engineering in an Academic Health System**

Victoria Jordan, University of Texas MD Anderson Cancer Center, USA

**PARALLEL SESSION X – THURSDAY (TH), 11:30 – 13:00**
**TH 11:30****GLOBAL ENGINEERING EDUCATION X****Tabanan I**

**Session Chair:** Dr. Budi Santosa, Surabaya Institute of Technology (ITS), Indonesia

**Dr. Abdurazzag Ali Aburas**, International University of Sarajevo, Bosnia and Herzegovina

**Dr. Muhammad H. Zaman**, Associate Chair for Undergraduate Affairs, Department of Biomedical Engineering, Boston University, USA: "**Engineering Education in Africa: Impact for Development and Sustainability**"

**Dr. Abdel Magid Hamouda**, Professor and Chairman of Mechanical and Industrial Engineering Department, Qatar University, Qatar: "**Innovation and Entrepreneurship in Higher Education: Status; Challenges and Future Trends**"

**TH 11:30****Production Planning I****Tabanan II**

**Session Chair:** Dr. Saad Suliman, University of Bahrain

**ID 077: Evaluating Performance of Production Scheduling from an Economic Perspective**

Johannes Mapokgole, University of Johannesburg, South Africa

**ID 118: A Reference Model for Development of Production Scheduling Systems**

Shigeru Fujimura, Graduate School of Information, Production and Systems, Waseda University, Fukuoka, Japan

**ID 275: Batch Scheduling for a Single Deteriorating Machine to Minimize Total Actual Flow Time**

Rinto Yusriski, Bandung Institute of Technology, Indonesia

**ID 007: An Algorithm for Solving Lot Sizing and Cutting Stock Problem within Aluminum Fabrication Industry**

Saad Suliman, University of Bahrain

**TH 11:30****Lean and Six Sigma II****Tanjung**

**Session Chair:** Dr. Asela Kulatunga, University of Peradeniya, Sri Lanka

**ID 292: A Conceptual Model for Full-Blown Implementation of Lean Manufacturing System in Malaysian Automotive Industry**

Eida Nadirah Roslin, University of Malaya, Kuala Lumpur, Malaysia

**ID 389: An Analysis of Predictor Variables for Operational Excellence through Six Sigma**

Anuradha R Chetiya, and Sunil Sharma, University of Delhi, India

**ID 476: Process Visualization of a Manufacturing Plant Based on Lean Concept**

H.M.M.M. Jayawickrama, S. Samarasena, and A.K. Kulatunga, University of Peradeniya, Sri Lanka

**ID 097: Application of Toyota's Production System to Reduce Traffic Accidents in Abha's Region (Case Study)**

Abdelhakim Abdelhadi, King Khalid University, Saudi Arabia

**TH 11:30****Human Factors II****Jepun**

**Session Chair:** Dr. Farag Elfeituri, University of Benghazi, Libya

**ID 171: An Investigation of the Effects of Noise on Cognitive tasks**

Farag Elfeituri, University of Benghazi, Libya

**ID 062: Development of a Graphical User Interface as Data Collection Tool for Cognitive Performance**

Eui Park, North Carolina A&T State University, USA

**ID 186: Development and Evaluation of a Collision Avoidance Display for Supporting Pilots' Decision Making in a Free Flight Environment**

Yakubu Ibrahim, Peter Higgins and Peter Bruce, Swinburne University of Technology (SUT), Melbourne, Australia

**ID 223: The Effects of Coping Mechanism, Gender and Shift to Stress Risk Level of Inbound Call Centers**

Rene Estember, Mapua Institute of Technology, Philippines

**ID 084: Quality of Work Life and Organizational Commitment**

Nushin Kamali Sajjad and Badri Abbasi, Islamic Azad University, Astara, Iran

**TH 11:30****Supply Chain Management VI****Bangli I**

**Session Chair:** Dr. Safwan Altarazi, German Jordanian University, Jordan

**ID 123: Supply Chain Networks Reliability by Considering Dependencies between Elements of the Chain**

Mohsen Babashahi, Iran University of Science and Technology, Iran

**ID 034: Dashboard User Interface for Measuring Performance Metrics: Concept from Virtual Factory Approach**

Ahm Shamsuzzoha, Yuqiuge Hao and Petri Helo, Department of Production, University of Vaasa, Finland

MMR Khan Khadem, Department of Mechanical and Industrial Engineering, Sultan Qaboos University, Muscat, Oman

**ID 337: The impact of SCM on Business Performance: A Case Study in Tehran Stock Exchange Market**

Ali Tajdin, Saba Shabaninikoo, Raj Mahdavi, and IHamed Fazlollahabbar, Mazandaran University of Science and Tech., Iran

**ID 567: Bull Whip and Reverse Bullwhip Effect in After Sales Service Supply Chains**

Manish Shukla, Malaysia Institute for Supply Chain Innovation, Shah Alam, Selangor, Malaysia

**TH 11:30****Sustainability and Green Systems II****Bangli II**

**Session Chair:** Dr. Evelyne Vanpoucke, Maastricht University, Netherlands

**ID 465: Implementation of Sustainable and Green Logistics Initiative as Supply Chain Strategy in FMCG Industry**

Shaliha Anistia, University of Hawaii at Manoa, USA

**ID 374: Environmental Sustainability Issues in Malaysian Metal and Fabrication SMEs: Comparative Analysis from a Case Study Perspectives**

Atiah Abdullah Sidek, International Islamic University Malaysia

**ID 262: Genetic Algorithm Approach for Multi-objective Green Supply Chain Design**

Li-Chih Wang<sup>1,2</sup>, Ming-Chung Tan<sup>1</sup>, I-Fan Chiang<sup>1</sup>, Yin-Yann Chen<sup>3</sup>, Sheng-Chieh Lin<sup>1</sup>, and Shuo-Tsung Chen<sup>1</sup>

<sup>1</sup> Department of Industrial Engineering and Enterprise information Tunghai University Taichung, Taiwan, ROC

<sup>2</sup>Tunghai Green Energy development and management Institute (TGEI) Tunghai University Taichung, Taiwan, ROC

<sup>3</sup> Department of Industrial Management National Formosa University Yunlin County, 632, Taiwan, ROC.

**ID 133: Auto Manufacturers and Applying Green Practices in the Presence of Rivals (The Case of End of Life Vehicles)**

Samira Keivanpour, Universite Laval, Canada

Christian Mascle, École Polytechnique de Montréal, Canada

Daoud Ait Kadi, Université Laval, Canada

**ID 440: Motivation to Pursue Green Supply Chain Management**

Evelyne Vanpoucke, Maastricht University, Netherlands

**TH 11:30**

**Logistics Management II**

**Rijasa I**

**Session Chair:** Dr. Christopher Backhouse, Loughborough University, United Kingdom

**ID 426: Outsourcing Strategy in Reverse Logistics Network: A Markov Decision Process and Simulation Approach**

Walid Abdul-Kader, University of Windsor, Canada

**ID 232: Planning of Oil Distribution Network with Artificial Intelligence Techniques**

B.S.M Borukgama, U.S.S. Dharmapriya and A.P. Senasinghe, University of Moratuwa, Moratuwa, Sri Lanka

A.K. Kulathunga, Department of Production Engineering, University of Peradeniya, Sri Lanka

**ID 226: Sustainable Food Supply Networks in the Chinese Supermarket Sector**

Christopher Backhouse and Chong Xu, Loughborough University, UK

Norizah Mohamad, Univesiti Sains Malaysia

Reshpal Plaha, Crystal Quality UK Ltd, UK

**ID 559: Innovative Vehicle and Traffic Control in the Next Generation of Road Transportation [Invited Paper]**

M.A.S. Kamal, Japan Science and Technology Agency (JST), Institute of Industrial Science, The University of Tokyo, Japan

**ID 542: Studies on Manufacturing Logistics by Using Data Mining Approach**

Jekka Subramanian Gnanasekaran, K.L.N. College of Information Technology, Tamil Nadu, India

**TH 11:30**

**Healthcare Systems II**

**Rijasa II**

**Session Chair:** Dr. Jamie Rogers, The University of Texas at Arlington, USA

**ID 150: Investigating the Role of Incentives in Improving Efficiency of Healthcare Systems**

Abhijit Deshmukh and Brandon Pope, Purdue University, USA

**ID 067: Home Healthcare Staff Scheduling: A Clustering Particle Swarm Optimization Approach**

Michael Mutingi, University of Botswana

**ID 197: Improve the Health Care Service and Patients Flow at Ophthalmology Clinic at Sultan Qaboos University Hospital using Six Sigma**

Nasr Al Hinai, Mohammad Khadem, and Mahmoud Al Kindi, Sultan Qaboos University, Oman

**ID 539: The Description of the Control Factors on the Complex Immune System**

Janar Yermekbayeva, Tolkinai Myrzakul, Onlaisyn Dauletbakova and Gulnara Abitova, L. N. Gumilev Eurasian National University, Kazakhstan

**ID 037: Statistical Models for Hospital Readmission Prediction with Application to Chronic Obstructive Pulmonary Disease (COPD) Patients**

Li Zeng, Smriti Neogi, and Jamie Rogers, The University of Texas at Arlington, Arlington, USA

Susan Seidensticker, Carlos Clark, Lindsey Sonstein, Rick Trevino, and Gulshan Sharma, Department of Internal Medicine, The University of Texas Medical Branch, Galveston, USA

**13:00 – 14:00 Lunch: On Your Own**

<b>PARALLEL SESSION XI – THURSDAY (TH), 14:00 – 15:30</b>
---

**TH 14:00****GLOBAL ENGINEERING EDUCATION XI****Tabanan I****Session Chair:** Dr. Shamsuddin Ahmed, University of Malaya, Kuala Lumpur, Malaysia

**Dr. Bidyut Kumar Bhattacharyya**, Director, School of Safety & Occupational Health Engineering, Bengal Engineering & Science University, West Bengal, India

**Dr. Ali R. Kaylan**, Dept. Industrial Engineering, Bogazici University, Turkey: “**Industrial Engineering Education in Turkey**”

**Dr. Yun-Hae Kim**, Professor, Korea Maritime and Ocean University, Korea and Vice-President, Korean Society for Engineering Education, South Korea

**TH 14:00****Production Planning II****Tabanan II****Session Chair:** Dr. Christina Thomas, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, Germany

ID 497: **A Relax-And-Fix Heuristic for a Production Planning Problem with Order Acceptance and Flexible Due Dates**  
Nadjib Brahimi, University of Sharjah, United Arab Emirates

ID 224: **The Effect of Inserted Idle Time on the Performance of Dispatching Rules in a Flow Shop**  
Ahmed El-Bouri, Sultan Qaboos University, Oman

ID 277: **Improving Decision Making within Production Control**  
Christina Thomas, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, Germany

**TH 14:00****Lean and Six Sigma III****Tanjung****Session Chair:** Dr. Tariq Aziz, King Saud University, Saudi Arabia

ID 092: **Improving Agility in Distribution Operations**  
Bernardo Villarreal, Javier Arriaga, Ciro Cardenas, Juan Pablo Rivera, and Humberto Campos, Universidad de Monterrey, Mexico

ID 351: **Implementation of Integrated System Six Sigma and Importance Performance Analysis for Quality Improvement of HSDPA Telecommunication Network and Customer Satisfaction**  
Slamet Pranoto and Rahmat Nurcahyo, Department of Industrial Engineering, University of Indonesia, Jakarta, Indonesia

ID 270: **Case Study: Innovative Implementation of Several Lean Principles in a Flat Steel Plant**  
Sameh M. Fahmi, Tamer M. Abdelwahab, Yaseen Amin, Mohamed S. Emam, Haytham Youssef and Ahmed Ragab, Al Ezz Dekheila Steel Co. (EZDK), Alexandria, Egypt

ID 015: **Application of Lean Six Sigma in Entertainment Industry by Integration of Risk management**  
Tariq Aziz and Mohammed Sharaf Fathe, King Saud University, Saudi Arabia

ID 550: **Costs of Quality and Six Sigma**  
Rathindra Nath De, Bengal Engineering and Science University, Shibpur, West Bengal, India

**TH 14:00****Human Factors III****Jepun****Session Chair:** Dr. Sunil Sharma, Faculty of Management Studies, University of Delhi, India

ID 423: **Digital Human Modeling and Clothing Virtual Try-on**  
Yueh-Ling Lin and Mao-Jiun J. Wang, National Tsing Hua University, Hsinchu, Taiwan

ID 502: **Safe Backpack Mass for Students in Tertiary Institutions**  
Salami O. Ismaila, Department of Mechanical Engineering, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria  
Kolawole T. Oriolowo, Department of Mechanical Engineering, The Polytechnic, Ibadan, Oyo State, Nigeria

ID 360: **A Survey on Interaction Techniques in Virtual Environments**  
Jaemoon Jung, Hanjun Park, Dongwook Hwang, Minseok Son, Donghyun Beck, Juhee Park, and Woojin Park, Department of Industrial Engineering, Seoul National University, Seoul, South Korea

**ID 520: Understanding Safety Dimensions among Logistics Personnel in Malaysia: Approaches from Social Psychology**

Huinee AuYong and Lilis Surienty, School of Management, Universiti Sains Malaysia, Penang, Malaysia  
 Suhaiza Zailani, Faculty of Business and Accountancy, Universiti Malaya, Kuala Lumpur, Malaysia

**ID 302: A Study on Push-Pull Analysis Associated with Awkward Posture among Workers in Aerospace Industry**  
 Seri Rahayu K., Norhidayah Hashim and Shahrizan M.O., Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia, Melaka, Malaysia

**TH 14:00****Supply Chain Management VII****Bangli I**

**Session Chair: Dr. Sanjay Jharkharia**, Indian Institute of Management Kozhikode, India

**ID 506: Considering Holding Cost in Optimal Core Acquisition and Remanufacturing Policy under Deterministic Process Times**

Mostafa Pazoki and Walid Abdul-Kader, University of Windsor, Canada

**ID 519: Weighting Suppliers Using Fuzzy Inference System and Gradual Covering in a Supply Chain Network**  
 Mohammad Asghari, Department of Industrial Engineering, Ferdowsi University of Mashhad, Azadi Sq., Mashhad, Iran

**ID 057: Challenges and Uncertainties in Collaborative Forecasting**

Madhavendra Saxena, Poornima University, India  
 Chinmoyee S.Despande, USA

**ID 135: Characteristics of Automotive Supply Chains-An Exploratory Study**

Sanjay Jharkharia, Indian Institute of Management Kozhikode, India

**TH 14:00****Sustainability & Green Systems III****Bangli II**

**Session Chair: Dr. Ana S. Camanho**, Faculdade de Engenharia da Universidade do Porto, Portugal

**ID 418: Assessment on the Ergonomic Factors and Green Building Features of the Selected 2012 Green Classrooms in the Philippines Luzon Area**

Hermie M. del Pilar, Department of Civil Engineering, Malayan Colleges Laguna, Cabuyao Laguna, Philippines  
 Rachel C. Villanueva, Ivan Jesrael Nagpala, Christian Garcia, and Mark Joseph Pablo, Department of Industrial Engineering, Malayan Colleges Laguna, Cabuyao Laguna, Philippines

**ID 380: Sustainability Perspectives: A Research on Leadership, Innovation, Performance and Competitive Advantage**

Khristian Edi Nugroho Soebandrija, Bina Nusantara University, Indonesia

**ID 467: European Directives Sustainability of Biofuels and Brazilian Market, Panorama Biodiesel**

Mariana Bittar, Universidade Federal do Rio de Janeiro-PRH, Brazil  
 Claudia Morgado, Victor Esteves, and Ofélia Araujo, Federal University of Rio de Janeiro, Brazil

**ID 339: Abandoned Development as a Brownfield Site: Case Study Kemayan City, Johor Bahru**

Nurlaila Ali, Land Administration and Development, Malaysia  
 Khadijah Hussin, and Ismail Ashmat, University Technology Malaysia  
 Kamalludin Bilal, Universiti Tun Hussein Onn Malaysia

**ID 325: Enhancing the Performance of Quota Managed Fisheries Using Seasonality Information: The Case of the Portuguese Artisanal Dredge Fleet**

Ana S. Camanho, Faculdade de Engenharia da Universidade do Porto, Portugal  
 Manuela M. Oliveira, and Miguel B. Gaspar, Instituto Português do Mar e da Atmosfera I.P., Portugal

**TH 14:00****Logistic Management III****Rijasa I**

**Session Chair: Dr. George Q. Huang**, The University of Hong Kong, China

**ID 306: An Exact Solution for a Class of Green Vehicle Routing Problem**

Mandy Taha, M. Nashat Fors, and Amin Ahmed Shoukry, University of Alexandria, Egypt

**ID 307: Investigating Supply Chain Risk Factors: An Empirical Assessment Approach**

Lhoussaine Ouabouch, Ibnou Zohr University, Morocco

**ID 350: Optimization of Multistage Logistic Network under Disruption Risk Considering Continuity Rate**

Muhammad Rusman and Syamsul Bahri, Department of Industrial Engineering, Hasanuddin University, Makassar, Indonesia  
 Yoshiaki Shimizu, Department of Mechanical Engineering, Toyohashi University of Technology, Japan

ID 375: **A Bargaining Framework Planning for Maintenance Service under Governmental Arms Offset Intervention**  
Jong-Jang Lin, Yi-Kuei Lin and Ruey-Huei Yeh, National Taiwan University of Science and Technology, Taipei, Taiwan

ID 405: **Conceptual Modelling on Economic Sustainability of Computer Part Recovery Systems**

Roesfiansjah Rasjidin<sup>1,2</sup>, Arun Kumar<sup>1</sup> and Firoz Alam<sup>1</sup>

<sup>1</sup> School of Aerospace, Mechanical & Manufacturing Engineering, RMIT University, Melbourne, Australia

<sup>2</sup> Industrial Engineering Department, Faculty of Engineering, Esa Unggul University, Jakarta, Indonesia

### TH 14:00

### Healthcare Systems III

### Rijasa II

**Session Chair:** Dr. Y. P. Singh, Somany P.G.Institute of Engineering & Technology, Rewari, Haryana, India

ID 252: **Using Simulation to Examine the Respond Time Taken by Medical Responder during Radiological and Nuclear Emergency**

Lau Kee Wah, Azurah A Samah, and Hairudin Abdul Majid, University of Technology Malaysia

ID 326: **A Method to Improve the Accessibility and Quality of a Brazilian Public Emergency Hospital Service**

Francisco Santos Sabbadini, Department of Industrial Engineering, University of State of Rio de Janeiro, Brazil

Mário Jorge Ferreira de Oliveira, Department of Production Engineering, University of State of Rio de Janeiro, Brazil

Antonio Augusto Gonçalves, Business School, Estácio de Sá University, Rio de Janeiro, Brazil

Antonio H. A. Junior, José G. M. Barros Ali and Rosinei Batista, University of State of Rio de Janeiro, Brazil

ID 402: **Embedding Process Improvement and Operations Management Technologies for Sustainable Service Quality and Performance Improvements: A Conceptual Framework**

Rohaizan Ramlan, Kamilah Ahmad, and Siti Anisah Atan, Universiti Tun Hussein Onn Malaysia

ID 537: **Living to 100 – Comparison Analysis between Customer and Economic View of Attributes for Wellness and Quality of Life**

Hye-Kyung Pang, Hallym University, South Korea

ID 060: **Use of Systems Engineering Tools and Concepts to Improve Chronic Disease Management**

Gulshan Sharma, Carlos Clark and Lindsay Sonstein, Department of Internal Medicine, The University of Texas Medical Branch, Galveston, TX, USA

Rick Trevino, Department of Clinical Data Management, The University of Texas Medical Branch, Galveston, TX, USA

Laura Grady, The University of Texas Medical Branch, Galveston, TX, USA

Susan Seidensticker, The University of Texas Medical Branch, Galveston, TX, USA

15:30 – 15:45

Tea / Coffee Break

## PARALLEL SESSION XII – THURSDAY (TH), 15:45 – 17:15

### TH 15:45

### Global Engineering Education

### Tabanan I

**Session Chair:** Dr. Bernardo Villarreal, Department of Industrial Engineering, Universidad de Monterrey, Mexico

**Plenary V:** Dr. Paulo Augusto Cauchick Miguel, Adjunct Professor, Dept. of Industrial and Systems Engineering Federal University of Santa Catarina – UFSC, Brazil: “*IE Education in Brazil: Fast Growing and Future Perspectives*”

**Plenary VI:** Ing. Oscar Gamboa C., Coordinator, Maestria en Sistemas Modernos de Manufactura, Instituto Tecnológico de Costa Rica: “*Engineering Education in Latin America*”

### TH 15:45

### Production Planning III

### Tabanan II

**Session Chair:** Dr. Ray Y. Zhong, The University of Hong Kong, Hong Kong, China

ID 050: **A Real-Time Planning and Scheduling Model in RFID-enabled Manufacturing**

Ray Y. Zhong, and George. Q. Huang, The University of Hong Kong, Hong Kong, China

Q. Y. Dai, School of Information Engineering, Guangdong University of Technology, Guangzhou, China

T. Zhang, T.Y. Luo and D.P. Lin, Huaiji Dengyun Auto Parts (Holding) Co., Ltd. Zhaoqing, China

ID 231: **Application of Simulated Annealing Algorithm in Advanced Planning and Scheduling System for TFT-LCD Color Filter Fab**

James C. Chen, National Tsing-Hua University, Taiwan

Chih-Cheng Chen, Yu-Yao Wei, Chin-Ping Liu, Chunghwa Picture Tubes Ltds, Taiwan

Jim Z. Lin, National Tsing-Hua University, Taiwan

**ID 291: A Heuristic Approach to Solve Production Planning Problem with Machine Failure in a Series Parallel Multi-State System**

Mustapha Noureifath, Kuwait University, Safat, Kuwait  
Yuvraj Gajpal, University of Manitoba, Canada

**TH 15:45****Lean and Six Sigma IV****Tanjung****Session Chair:** Abdullah Dhafer, Aramco, Saudi Arabia**ID 458: A Quality Model for a Multi-Layered Sourcing Supply Chain**

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

**ID 073: Applying an Alternative Heuristic Algorithm to Gupta Method for Sequencing Lean Software Processes**

Eldon Caldwell, University of Costa Rica  
Oscar Gamboa, Technological Institute of Costa Rica

**ID 473: Implementation of Lean Manufacturing through Supplier Kaizen Framework: A Case Study**

Mohd Hazri Mohd Rusli, Toyota Malaysia  
Ahmed Jaffar, and Suzilawati Muhamud-Kayat, Universiti Teknologi Mara, Malaysia

**ID 521: Value Stream Mapping using Simulation at Metal Manufacturing Industry**

Raja Zuraidah Raja Mohd Rasi, Universiti Tun Hussein Onn, Johor, Malaysia  
Rohana Abdullah, and Nooririnah Omar, Universiti Teknikal Malaysia Melaka

**ID 320: Aramco Riyadh Refinery Lean Six Sigma Projects, Case Study**

Abdullah Dhafer, Aramco, Saudi Arabia

**TH 15:45****IE/OM in Asia****Jepun****Session Chair:** Navid Mollaei, Rayan Marketing Co., Tehran, Iran**ID 125: ASEAN Industrial Engineering and Work Measurement Practices Phenomenon**

Sze Yee Thong, Universiti Malaysia Perlis (UniMAP), Perlis, Malaysia

**ID 540: Women Engineers-their Life Values in Australia**

Susan Fenton, Fenton Partners Pty Ltd, Australia

**ID 349: Upscaling Efficiency of Extension for Development of Agri-horticulture and Livestock in Semi-arid Rajasthan**

Prakash Kalla, S K Rajasthan Agricultural University, India

**ID 460: Readiness of Indonesian Companies for ASEAN Economic Community (AEC): Preliminary Findings from Automotive and Garment Industries**

Mahendrawathi ER, Anisah Herdiyanti and Hanim Maria Astuti, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

**ID 561: Evaluating the Performance of State University, National Important Institute and Private Deemed Universities in Chennai (India) by using Data Envelopment Analysis**

A. John Rajan, Sathyabama University, Rajeeve Gandhi Salai, Chennai, India

**TH 15:45****Supply Chain Management VIII****Bangli I****Session Chair:** Rahat Uddin, Banglades Bank, Dhaka, Bangladesh**ID 175: A Study of Incentives and its Policies for Sustainability in Supply Chain**

James C. Chen, National Tsing Hua University, Taiwan  
Tien-Chi Shen, Chia-Ping Fun and Jason Wen-Hsien Chang, Industrial Technology Research Institute, Taiwan  
Tien-Yang Chang, Zih-Sian Lin and Yi-Jhen Lin, National Tsing Hua University, Taiwan

**ID 328: Logistics and Supply Chain Management Approach to SMEs in Noodle Factory Industry: Lean and Six Sigma Tool**

Parinya Pattanawanporn, Kamphaeng Saen Kasetsart University Kamphaeng Saen Campus, Thailand

**ID 335: Data Mining on Return Items in a Reverse Supply Chain**

Lida Mohammadi, Iraj Mahdavi, and Ali Tajdin, Mazandaran University of Science and Technology, Babol, Iran  
Hamed Fazlollahtabar, Iran University of Science and Technology, Tehran, Iran / Niroogostar Energy Optimization Research Group, Tehran, Iran

ID 432: **Barriers in Implementing Green Supply Chain Management in Construction Industry**  
Elizabeth Ojo and Esther T. Akinlabi, and Charles Mbohwa, University of Johannesburg, South Africa

**TH 15:45****Sustainability and Green Systems IV****Bangli II**

**Session Chair:** Dr. Caroline Himadewi Santoso, Soochow University, Australia

ID 239: **Recovery and Remanufacturing Targets versus Taxation/Subsidy Policies for Product Reuse**  
Sam Aflaki and Shumail Mazahir, HEC Paris, France

ID 340: **A Review on Criteria for Green Infrastructure to be adopted by Local Authorities**  
Kamalludin Bilal, Universiti Tun Hussein Onn Malaysia  
Hishammudin Mohd Ali, and Ibrahim Atan Sipan, University Technology Malaysia  
Nurlaila Ali, Land Administration and Development, Malaysia

ID 518: **A Nondominated Sorting Genetic Algorithm for Sustainable Reverse Logistics Network Design**  
Mohammad Asghari, Ferdowsi University of Mashhad, Mashhad, Iran

ID 479: **Study on Key Factors of Adopting Sustainable Supply Chain Management in Indonesia**  
Caroline Himadewi Santoso, Jinshyang Roan, and Jei-Zheng Wu, Soochow University, Taiwan

ID 545: **The Influence of Innovation Performance towards Manufacturing Sustainability Performance**  
Mohd Razali Muhamad, and Zuhriah Ebrahim, Universiti Teknikal Malaysia Melaka, Malaysia  
Norsiah Hami, Universiti Utara Malaysia

**TH 15:45****Technology Management****Rijasa I**

**Session Chair:** Dr. Prakash Naraian Kalla, S.K. Rajasthan Agricultural University, Bikaner, Rajasthan, India

ID 098: **A New Program for Incorporative Research between Research Centers and Oil and Gas industry in I.R. of IRAN, Involving Scientific Centers of Excellence – Case Study in NIGC**  
Ali Massaeli, National Iranian Gas Company, Iran

ID 377: **Improving Technology through Tacit and Codified Knowledge for SMEs in Developing Economies (Empirical Study)**  
Fourry Handoko, National Institute of Technology, ITN Malang, East Java, Indonesia

ID 505: **Technology Transfer Model through Industrial Collaboration for Product Development and Technopreneurship in Polytechnic Education**  
Mohammad Nurdin, Polytechnic for Manufacturing of Bandung (POLMAN Bandung), Indonesia

ID 439: **Resolving Conflicting Requirements in the Management of Technology and Innovation - Insights from a Comparative Case Study of ADSL Technology**  
Annelies Geerts, Annelies Geerts, and Bart Van Looy, KU Leuven, Belgium  
Klaasjan Visscher, and Petra de Weerd-Nederhof, University of Twente, Netherlands

ID 030: **Challenges Associated with Cool Chain Management System!**  
S. Asiya Z. Kazmi, and Marja Naaranoja, University of Vaasa, Finland

**TH 15:45****Systems Engineering****Rijasa II**

**Session Chair:** Dr. Md. Liakot Ali, Institute of Information and Communication Technology (IICT), Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

ID 104: **Integration of Multivariate Statistical Process Control and Engineering Process Control**  
Mohammed A. Rahim, University of New Brunswick, Fredericton, Canada  
Yasir A. Siddiqui and Moustafa Elshafei, King Fahad University of Petroleum and Minerals, Dhahran, Saudi Arabia

ID 121: **EFQM Constructive or Destructive the Business Excellent**  
Mohammad Eslamipour, Mapna Generator Co., Iran

ID 414: **Die Preparation Time Reduction Optimization of Automotive Stamping Operations**  
Nirav Sheth, Abass Enzi, Parth Patel, Don Reimer and Ahad Ali, Lawrence Technological University, USA

ID 481: **Investigation Novel Matched Valve-Actuator with Atomizer Insert Design For Two-Fluid With 50% Fill Ratio**  
Norzelawati Asmuin, Centre for Energy and Industrial Environment Studies (CEIES), Universiti Tun Hussein Onn Malaysia



## Posters – IEOM 2014 Conference

**ID 010: Practices and Problems - Fixing Loose Ends of Shared Services Governance**

Simon Maabe, and Charles Mbohwa, University of Johannesburg, South Africa  
Paulin Mbecke, Council for Scientific and Industrial Research, South Africa

**ID 016: A Comparative Analysis between Small and Medium Scale Manufacturing Company through Total Quality Management Techniques**

Mohammad Israr, Balaji Engineering College, Junagadh, Gujarat, India  
Anshul Gangele, Institute of Technology & Management, Gwalior, India

**ID 020: Use of Physical and Numerical Models in Engineering Design Education**

Saidani, Messaoud and Abdussalam Shibani, Faculty of Engineering and Computing, Coventry University, UK

**ID 032: Determination of Insulation Active Component of an Insulated Neutral Electrical Supply Network**

Abderrezzak Hocine, Department of Electromechanical, Badji Mokhtar University, Annaba, Algeria

**ID 043: A Structural Equation Model for Identifying Critical Success Factors of Implementing ERP in Iranian, Kalleh Food Products Company**

Reza Farrokhanian and Faezeh Soleimani, Industrial Management Institute – North Branch, Amol, Iran  
Yousef Gholipour-Kanani, Department of Management, Islamic Azad University - Qaemshahr Branch, Qaemshahr, Iran  
Seyed Mehrdad Moghaddam Ziabari, Department of Management, Industrial Management Institute – North Branch, Amol, Iran

**ID 044: Magnetic Field Assisted Machining**

Farhad Najarian, M.Y. Noordin and D. Kurniawan, Universiti Teknologi Malaysia, Skudai, Malaysia

**ID 059: The Survey of Role of Freight Forwarders in the Coordination Supply Chain**

Ehsan Jamshidi Meyabadi and School of Business, Payam Noor University, Branch of Karaj, Iran  
Razieh Maleki, School of Business, Islamic Azad University, Branch of Kermanshah, Iran

**ID 081: A Modified Failure Mode and Effect Analysis**

Shahryar Sorooshian, Ahmad Nazif Bin Noor Kamar, and Ali Asghar Jomah Adham, University Malaysia Pahang, Malaysia

**ID 083: Supply Chain Security with IT Application**

Shahryar Sorooshian, and Ahmad Nazif Bin Noor Kamar, Faculty of Technology, University Malaysia Pahang, Malaysia

**ID 094: Critical Quality Factors and Financial Performance of the Libyan Construction Firms**

Nawal Gharbal, Amrit Sagoo and Abdussalam Shibani, Coventry University, UK

**ID 110: A Bi-Objective Model for Locating and Sizing Emergency Medical Service Stations**

Nasrin Ramshe and Elahe Amiri, Department of Industrial Engineering, Amirkabir University of Technology, Tehran, Iran

**ID 116: E-Development - Place of Citizen Rights**

Md. Abdullah Al Noman, Dhaka University of Engineering & Technology (DUET), Gazipur, Bangladesh  
Khan Manjur Morshed, Director, Bangladesh Power Development Board (BPDB), Khulna, Bangladesh

**ID 117: A Comparative Study of Investor-Financial Advisor Perspectives on Wealth Management Services: An AHP Approach**

Jui-Chu Chen, Hsiu-I Ting, National Kaohsiung First University of Science and Technology, Kaohsiung, Taiwan  
Vincent F. Yu, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

**ID 122: Material and Structural Investigation into a Novel Material**

Messaoud Saidani, Faculty of Engineering and Computing, Coventry University, United Kingdom  
Abdussalam Shibani, Department of Civil Engineering, Coventry University, United Kingdom  
Sam George, Architecture and Building, Coventry University, United Kingdom

**ID 124: Materialized Views Maintenance in the Mobile Environment**

Sebaa Abderrazak, LIMED, Algeria  
Tari A/Kamel, Algeria

**ID 129: Automatic Evaluations of the Results of Segmentation**

Soraya Tighidet, University of Bejaia, Algeria  
Aloui Abdelouhab, University A/Mira, Bejaia, Algeria

**ID 138: Step-Stress Accelerated Life Testing Plans against Model Misspecification for the Weibull Distribution**

Cheng-Hung Hu, Department of Industrial Engineering and Management, Yuan Ze University, Chung-Li, Taiwan

**ID 163: Spanning Tree of Residual Energy Based on Data Aggregation for Maximizing the Lifetime of Wireless Multimedia Sensor Networks**

Pu-Tai Yang, Department of Business Administration, Tunghai University, Taichung, Taiwan  
Seokcheon Lee, School of Industrial Engineering, Purdue University, West Lafayette, IN, USA

**ID 168: Quality Management and Supply Chain Management Integration: A Conceptual Model Proposal**

Ana Cristina Fernandes, Paulo Sampaio, Maria do Sameiro Carvalho, University of Minho, Braga, Portugal

**ID 181: Industrial Maintenance Management – A Practical Approach**

Hani Shafeek, Department of Industrial Engineering, King Abdulaziz University, Rabigh, Saudi Arabia

**ID 241: Techno-Economic Study for Lignocellulosic Biomass Processing and Ethanol Fermentation Refinery Design**

Rois Fatoni, Universitas Muhammadiyah Surakarta, Indonesia

A. Elkamel, G. DeSouza, M. Ortiz, H. Park, and D. Wang, University of Waterloo, Ontario, Canada

**ID 243: Modeling Biomass Gasification in a Fluidized Bed Reactor**

R. Fatoni, Universitas Muhammadiyah Surakarta, Indonesia

S. Gajjar, S. Gupta, S. Handa, and A. Elkamel, University of Waterloo, Ontario, Canada

**ID 253: Optimization Model for the Integration of Biomass into a Conventional Oil Refinery**

I. Alhajri, College of Technological Studies, Kuwait

E. Alper and G. Is, Hacettepe University, Ankara, Turkey

J. Fung, J. Lo, K. Yanez, and Ali Elkamel, University of Waterloo, Canada

Ibrahim Alhajri, College of Technological Studies, Kuwait

I. Z. Al-Syed, A. Jetly, J. Tordiff, and A. Elkamel, University of Waterloo, Ontario, Canada

**ID 254: Optimization Model for the Integration of Nuclear Energy in Oil Sand Operations**

M. Elsholkami, A. Elkamel, I. Al-Syed, A. Jetly, and J. Tordiff, University of Waterloo, Canada

I. Alhajri, College of Technological Studies, Kuwait

**ID 256: A Hybrid Heuristic for Inventory Routing Problem with Stochastic Demand**

Anak Agung Ngurah Perwira Redi, Meilinda F.N. Maghfiroh and Vincent F. Yu, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

**ID 257: Development of Steam Management Technologies for the Oil Sands Industry**

M. Elsholkami, S. Shankar, M. Walawalkar, M. Mehta, A. Merchant, and A. Elkamel, University of Waterloo, Canada

I. Alhajri, College of Technological Studies, Kuwait

**ID 260: Integrating a Cogeneration System in Food Process Manufacturing**

Wongphaka Wongrat, Faculty of Engineering, Kasetsart University, Kamphaeng Saen Campus, Thailand

O. Yuksel Orhan and E. Alper, Hacettepe University, Ankara, Turkey

J. Massicotte, D. Meyer, Y. Sung, and A. Elkamel, University of Waterloo, West Waterloo, ON N2L 3G1, Canada

**ID 261: Modeling Fouling Mitigation Options for Cellulosic Ethanol Distillation**

Wongphaka Wongrat, Faculty of Engineering, Kasetsart University, Kamphaeng Saen Campus, Thailand

M. Northey, K. Ali, A. Garusinghe, and A. Elkamel, University of Waterloo, Ontario, Canada

**ID 269: Benefits of using Unit Production System (UPS) Line over Conventional Line in the Sewing Section of a Garment Industry**

Md. Atikul Islam, Khulna University of Engineering & Technology (KUET), Bangladesh

**ID 286: Possibilities of using Computer Simulation in Production Process**

Michal Pivnička and Denisa Ferenčíková, Tomas Bata University in Zlín, Zlín, Czech Republic

**ID 297: Monopoly Sponsored Entry in the Face of Demand Uncertainty and Constrained Capacity**

Farooq Sheikh, State University of New York (SUNY), Geneseo, USA

**ID 309: Achieving Efficient Remanufacturing through Product-Service Systems**

Erik Sundin, Linköping University, Sweden

**ID 314: Gasification of Oil Refinery Waste for Power and Hydrogen Production**

O. Yuksel Orhan, and E. Alper, Hacettepe University, Ankara, Turkey

K. McApline, S. Daly, M. Sycz, and A. Elkamel, University of Waterloo, Waterloo, Ontario, Canada

**ID 315: Optimal Design of T2 Multivariate Statistical Chart for Process Monitoring**

M. A. Bin Shams, Department of Chemical Engineering, University of Bahrain, , Isa Town, Kingdom of Bahrain

O. Yuksel Orhan and E. Alper, Chemical Engineering Department, Hacettepe University, Ankara, Turkey

K. Moorthy, J. Rafinejad, A. Saxena, and A. Elkamel, University of Waterloo, Waterloo, Ontario, Canada

**ID 322: Analysis Characteristics of Premix Injector Involve (Diesel, Water and Air) in Burner System using ANSYS CFX**

M. Farid Sies, M. Faris Sies, Hanis Zakaria, Norrizal Mustaffa, B. Manshoor, and N. Asmuin, Centre for Energy and Industrial Environment Studies (CEIES), Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

**ID 327: Improving Productivity under Cost Constraints: A Discrete Simulation Case Study Improving Productivity under Cost Constraints: A Discrete Simulation Case Study**

Raed EL-Khalil, School of Business, Lebanese American University, Beirut, Lebanon

**ID 332: Novel Framework for Sustainability Based On Hybrid Architecture-Green Management**

Shahryar Sorooshian and Ahmad Nazif Bin Noor Kamar, Faculty of Technology, University Malaysia Pahang, Malaysia  
Siavash Rashidi Sharif Abad, Department of Art and Architecture, Islamic Azad University, Rafsanjan, Iran

ID 344: **Overall Improvement for the Design of Motorized Tricycles in the Philippines – An Ergonomic Study**  
Ma. Janice J. Gumasing, Mapua Institute of Technology, Intramuros, Manila, Philippines

ID 345: **Evaluating Supply Chain Performance and Risks through Data Mining**  
Muhammad Rashid, CESET - Centre for Emerging Sciences, Engineering & Technology, Pakistan

ID 346: **Determinants of Supplier Selection and Evaluation, their Impact on Business Key Performance Indication of Buying Companies: In the Context of Telecom Companies in Pakistan**  
Muhammad Rashid, CESET - Centre for Emerging Sciences, Engineering & Technology, Pakistan

ID 352: **Job Shop Lean Production Implementation Using Program Evaluation and Review Technique (Pert)**  
Ramiz Assaf, Industrial Engineering Department, An-Najah National University, Nablus, Palestine

ID 358: **Evaluation of Pliers in a Maximum Gripping Task**  
Hyun-Sung Kang, Ji-Su Kim, Dae-Min Kim, and Yong-Ku Kong, Sungkyunkwan University, Suwon, South Korea  
Myung-Chul Jung, Department of Industrial Engineering, Ajou University, Suwon, South Korea

ID 364: **Study for the Effect of Middle Finger Grip Span on Ring Finger Force in the Maximum Gripping Task**  
Dae-Min Kim, Hyun-Sung Kang, Ji-Su Kim, and Yong-Ku Kong, Sungkyunkwan University, Suwon, South Korea  
Myung-Chul Jung, Department of Industrial Engineering, Ajou University, Suwon, South Korea

ID 373: **Voltage Sag Assessment by Considering Financial Losses and Equipment Sensitivity**  
Chang-Hyun Park, Pukyong National University, Busan, South Korea

ID 392: **Framework to Implement Six Sigma Methodology to Oil and Gas Drilling Budget Estimation.**  
Mahmood Al Kindi and Mujtaba Al Lawati, Sultan Qaboos University, Muscat, Oman

ID 404: **Effects of Toluene (C7H8) Addition on Microstructure and Superconducting Properties of Bulk C6H10O6Fe + SiC-Doped MgB2**  
Syed Quddus and A. Bhagirov, The University of Ballarat, The University of Technology Papua New Guinea

ID 412: **Tendencies in Education on Optical Design in Europe**  
Irina Livshits, Marina Letunovskaya, Ilya Mimorov and Vladimir Vasilyev, National Research University of Informational Technologies, Mechanics and optics, Russia  
Paul Urbach, Optics Research Group, Delft University of Technology, The Netherlands

ID 419: **A Study of the Relationship among IFRSS, Institutional Environment and Cost of Debt Capital-Evidences from EU**  
Cheng-Hwai Liou, National Taichung University of Science and Technology, Taiwan  
Chia-Hui Yeh, Moore Stephens Certified Public Accountants, Taichung, Taiwan

ID 436: **Analysis of a Two-Echelon Inventory Model with Lost Sales and Stochastic Demand Using Continuous-Time Markov Chain**  
Iman Vasheghani Farahani, and Rasoul Haji, Sharif University of Technology, Iran

ID 470: **The Relationship between Quality Approaches and Their Impact on Portuguese Companies' Quality Performance**  
Síría Barros, and Paulo Sampaio, University of Minho, Portugal  
Pedro Saraiva, Universidade de Coimbra, Portugal

ID 501: **The Operating Decisions of Corporate Business Based on the Brusselator Model**  
Xiao Han and Dong Mu, School of Economics and Management, Beijing Jiaotong University, China

ID 514: **Implementation of Reverse Logistic System as a Means of Environmental and Economical Issue**  
Hemendra Nath Roy, Sudipta Saha, Md. Shohel Parvez, Sufal Chandra Goldar and Tarapada Bhowmick, Khulna University of Engineering and Technology, Khulna, Bangladesh

ID 523: **Roughness Enhancement of Parts Produced by Multi-Layer SPIF**  
Qasim M. Doss, Baghdad University, Baghdad, Iraq  
Tahseen F. Abaas and Aqeel S. Bedan, University of Technology, Baghdad, Iraq

ID 524: **A Stochastic Approach to Hotel Revenue Management Considering Individual and Group Customers**  
M. A. Vahdat, Sh. Golestany, M. H. Abooi and M. Honarvar, Yazd University, Iran

#### Keynote Paper

ID 564: **Supply Chain and Logistics Challenges and Opportunities in Asia: Innovative Urban Logistics Concept**  
Robert de Souza, Lindawati and Zhang Xing, The Logistics Institute – Asia Pacific, National University of Singapore  
Mark Goh, The Logistics Institute – Asia Pacific and NUS Business School, National University of Singapore

## IEOM 2014 Best Track Papers Awards

Because of the diversity of the research, entries of real case examples and quality reporting in the papers, it was a very hard decision to select the finalists in each track by our panel of judges. After considering all entries the following papers were awarded for the IEOM 2014 Best Track Papers Awards. The awards will be presented at the IEOM 2014 Bali Conference Dinner on Wednesday, January 8, 2014.

### Artificial Intelligence Track

ID 208: **Practical ABC intelligence solution for Quadratic Assignment**

Golnar Behzadi and Balan Sundarakani, Faculty of Business and Management, University of Wollongong in Dubai, UAE

### Case Studies Track

ID 382: **Religiosity and Customer Satisfaction in Public Sector of Pakistan: An Empirical Study**

Muhammad Muzammil Tanveer, National University of Sciences & Technology, Islamabad, Pakistan  
Rida Khurshid, Fatima Jinnah Women University, Rawalpindi, Pakistan

### Computer and Information Systems Track

ID 043: **A Structural Equation Model for Identifying Critical Success Factors of Implementing ERP in Iranian, Kalleh Food Products Company**

Reza Farrokhian and Faezeh Soleimani, Dept. Management, Industrial Management Institute – North Branch, Amol, Iran

Yousef Gholipour-Kanani, Department of Management, Islamic Azad University - Qaemshahr Branch, Qaemshahr, Iran

Seyed Mehrdad Moghaddam Ziabari, Dept. of Management, Industrial Management Institute – North Branch, Amol, Iran

### Construction Management Track

ID 196: **Submerged Geotextile Breakwater Construction Modeling**

Amarjit Singh and Jerre Hansbrough, Dept. of Civil & Environmental Engineering, University of Hawaii, Manoa, Honolulu, USA

### E-Business and E-Commerce Track

ID 206: **E-shopping Success Dimensions – An Empirical Study in Kuwait**

Kamel Rouibah, College of Business Administration, Kuwait

### Energy Track

ID 395: **Wind Energy Analysis for 3 Prospective Costal Sites of Bangladesh**

Muhammad Mahbubul Alam, Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh  
A. K. Azad, Sylhet Gas Field Limited, Sylhet, Bangladesh

### Engineering Economy Track

ID 510: **Examining Relationship between Macroeconomic Variables Using Var Approach**

Imran Arshad, IBA Sukkur, Pakistan

### Engineering Education Track

ID 413: **New Methods for Course Development and Management in Engineering Education**

Peter Toth, Trefort Agoston Centre for Engineering Education. Obuda University, Hungary  
Imre J. Rudas, Obuda University, Hungary

ID 042: **Systematic Development of a Multifunctional Passenger Safety Bar Based on a Reference Project Frame for Student Design Projects**

Karl Hain, Christoph Rappl and Josef Süß, DIT - Deggendorf Institute of Technology, Deggendorf, Bavaria, Germany

Walter Steininger, Max Streicher GmbH & Co., Deggendorf, Germany

### Engineering Management Track

ID 273: **Assembly Line Balancing Problem of Sewing Lines in Garment Industry**

James C. Chen, National Tsing Hua University, Hsinchu, Taiwan

Chun-Chieh Chen, Chung Yuan Christian University, Chung Li, Taiwan  
Yi-Jhen Lin, Chun-Ju Lin, and Tiffany Y. Chen, National Tsing Hua University, Hsinchu, Taiwan

### Facilities Planning and Management Track

#### ID 204: Facility Location in a Three-Echelon Supply Chain with Stochastic Demand - A Discrete-Event Simulation Approach

Hasan Hosseini Nasab and Morteza Elahi, Faculty of Industrial Engineering, Yazd University, Iran  
Hamed Elahi, Faculty of Industrial Engineering, Sadjad Institute, Iran

### Healthcare Systems Track

#### ID 037: Statistical Models for Hospital Readmission Prediction with Application to Chronic Obstructive Pulmonary Disease (COPD) Patients

Li Zeng, Smriti Neogi, and Jamie Rogers, The University of Texas at Arlington, Arlington, USA  
Susan Seidensticker, Carlos Clark, Lindsey Sonstein, Rick Trevino, and Gulshan Sharma, Department of Internal Medicine, The University of Texas Medical Branch, Galveston, USA

### Human Factors and Ergonomics Track

#### ID 343: A Predictive Model of the Severity of Musculoskeletal Disorders among Poultry Layer Workers

Ma. Janice J. Gumasing, School of Industrial Engineering and Engineering Management, Mapua Institute of Technology, Intramuros, Manila 1002, Philippines

### IE/OM in Asia Track

#### ID 269 Benefits of using Unit Production System (UPS) Line over Conventional Line in the Sewing Section of a Garment Industry

Md. Atikul Islam, Dept. of Industrial Engineering & Management, Khulna University of Engineering & Technology (KEUT), Bangladesh

### Inventory Management Track

#### ID 237: A Single Manufacturer - A Single Buyer Partnership with Vendor Managed Inventory and Consignment

Docki Saraswati, Trisakti University, Indonesia  
Andi Cakravastia, Bermawi P. Iskandar, and Abdul Hakim Halim, Bandung Institut Teknologi, Indonesia

### Lean and Six Sigma Track

#### ID 476: Process Visualization of a Manufacturing Plant Based On Lean Concept

H.M.M.M. Jayawickrama, Department of Production Engineering, University of Peradeniya, Sri Lanka  
S. Samarasena, Department of Electrical and Electronic Engineering, University of Peradeniya, Sri Lanka  
A.K. Kulatunga, Department of Production Engineering, University of Peradeniya, Sri Lanka

### Logistics Management Track

#### ID 365: Location-Routing-Inventory Problem with Transshipment

Haliza Ahmad, Pa'ezah Hamzah, Zaitul Anna Melisa Md Yasin and S. Sarifah Radiah Shariff, Centre for Statistical and Decision Science Studies, Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA, Malaysia

### Manufacturing and Design Track

#### ID 137: A Generic Model for Integrated Sales, Product, and Production Configuration

Linda L. Zhang, IESEG School of Management, France

### Modeling and Simulation Track

#### ID 430: Efficient Computation of the Area and Length of a Planar Contour Using Digital Elevation Model Data

Hiroyuki Goto, Department of Industrial & System Engineering, Hosei University, Koganei, Tokyo, Japan  
Yoichi Shimakawa, Department of Computer Science and Technology, Salesian Polytechnic, Tokyo, Japan

### Operations Management Track

#### ID 272: Understanding Dynamics of Green House Gases Impacts on Jakarta's Urban Development Using Model-Based Policy Simulator to Support Policy Making

Akhmad Hidayatno, Irvanu Rahman, and Ricki Muliadi, University of Indonesia, Jakarta, Indonesia

**Operations Research Track****ID 107: Green Supply Chain Design with Multi-Objective Optimization**

Kartina Puji Nurjanni, Postgraduate Program of Industrial Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia

Maria S. Carvalho and Lino A.A.F da Costa, Department of Production and System, Universidade do Minho, Portugal

Fauzun, Department of Mechanical and Industrial Engineering, Universitas Gadjah Mada, Yogyakarta 55281, Indonesia

**Production Planning and Management Track****ID 118: A Reference Model for Development of Production Scheduling Systems**

Shigeru Fujimura, Graduate School of Information, Production and Systems, Waseda University, Fukuoka, Japan

**Industrial Automation and Control Track****ID 370: Contactless Smart Card Based Prepaid Gas Metering System**

Md. Liakot Ali, Mohammad Imam Hasan Bin Asad and Md. Saiful Islam, Institute of Information and Communication Technology, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

**Project Management Track****ID 205: An Approach for Project Scheduling Using PERT/CPM and Petri Nets (PNs) Tools**

Amer A. Boushaala, Dept. of Industrial and Manufacturing Systems Engineering, University of Benghazi, Libya

**Quality Control and Management Track****ID 279: Designing a Variables Two-Plan Sampling System with Process Loss Consideration**

Nani Kurniati, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

Chien-Wei Wu, Dept. of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan

Ruey-Huei Yeh, Department of Industrial Management, National Taiwan University of Science and Technology, Taipei, Taiwan

**Reliability and Maintenance Track****ID 087: Nonlinear Mixed-Effects Models for Multiple Repairable Systems**

Byeong Min Mun and Suk Joo Bae, Department of Industrial Engineering, Hanyang University, Seoul, Republic of Korea

**Service Systems and Service Management****ID 147: Airline Overbooking under Stochastic Show-Up Probability**

Kannapha Amaruchkul, National Institute of Development Administration (NIDA), Bangkok, Thailand

**Supply Chain Management Track****ID 194: Centralizing Slow-Moving Items in a Retail Network – A Case Study**

Shao Hung Goh and Boon Lian Lim, School of Business, Singapore Institute of Management (SIM) University, Singapore

**Sustainability and Green Systems Track****ID 065: A Framework for Evaluation of Renewable Energy Policies**

Michael Mutingi, University of Botswana, Botswana

Charles Mbohwa, University of Johannesburg, South Africa

**Systems Engineering Track****ID 481: Investigation Novel Matched Valve-Actuator with Atomiser Inserts Design for Two-Fluid With 50% Fill Ratio**

Norzewelati Asmuin, Centre for Energy and Industrial Environment Studies (CEIES), Faculty of Mechanical Engineering and Manufacturing, Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia

**Technology Management Track****ID 314: Gasification of Oil Refinery Waste for Power and Hydrogen Production**

O. Yuksel Orhan, G.İs and E. Alper, Chemical Engineering Department, Hacettepe University, Ankara, Turkey

K. McApline, S. Daly, M. Sycz and A. Elkamel, Chemical Engineering Dept., University of Waterloo, Canada

## CONFERENCE COMMITTEE

### Conference Chair

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

### Industry Chair

Majid Abab, The Boeing Company, USA

### Program Chairs

Dr. M. Khadem, Sultan Qaboos University, Muscat, Oman

Dr. Budi Santosa, Institute Technology Sepuluh (ITS), Surabaya, Indonesia

Dr. Olufemi Adetunji, University of Pretoria, South Africa

### Technical Chairs

Dr. M. Rahman, University of Southern Mississippi, USA

Dr. Fikri Dweiri, University of Sharjah. Sharjah, United Arab Emirates

### Publication Chairs

Dr. Gede Agus Widyadana, Petra Christian University, Surabaya, Indonesia

Dr. Fethi Calisir, Istanbul Technical University, Macka Campus, Turkey

### Marketing Chairs

Dr. Endang Chumaidiyah, Institut Teknologi Telkom, Indonesia

Dr. Grace Kanakana, Tshwane University of Technology, South Africa

### Sponsors and Exhibitors Chair

Don Reimer, Lawrence Technological University, Southfield, Michigan, USA

### Conference Secretary

Ms. Luba Kagan, Accountant, Business Services, Lawrence Technological University, Michigan, USA

### Local Committee

Dr. Budi Santosa, Institute Technology Sepuluh (ITS), Surabaya– Local Chair

Dr. Andi Cakravastia, Bandung Institute of Technology

Dr. Abdul Hakim Halim, Bandung Institute of Technology

Dr. Akhmad Hidayatno, University of Indonesia

Dr. Docki Saraswati, Trisakti University

Dr. Endang Chumaidiyah, Institut Teknologi Telkom

Dr. Gede Agus Widyadana, Petra Christian University, Surabaya

Dr. Yuri Zagloel, University of Indonesia

### Advisory Committee

Dr. Muhammad Abid, Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Pakistan

Dr. Olufemi Adetunji, University of Pretoria, South Africa

Dr. Umar AL-Turki, King Fahd University of Petroleum and Minerals, Saudi Arabia

Dr. Ronald G. Askin, Arizona State University, USA

Dr. Raj Das, University of Auckland, New Zealand

Dr. Funso Falade, University of Lagos, Lagos, Nigeria

Dr. Arun Kumar, Royal Melbourne Institute of Technology (RMIT) University, Australia

Dr. Jay Lee, University of Cincinnati, USA

Dr. Abu Masud, Wichita State University, Kansas, USA

Dr. Samar Mukhopadhyay, GSB-Sung Kyun Kwan University, Seoul, Korea

Dr. Leonard Perry, University of San Diego, USA

Dr. Ho Thanh Phong, International University – VNUHCM, Vietnam

Dr. Abdur Rahim, University of New Brunswick, Canada

Dr. Rapinder Sawhney, University of Tennessee – Knoxville, USA

Dr. Rosemary Seva, De La Salle University – Manila, Philippines

Dr. AHM Shamsuzzoha, University of Vaasa, Finland

Dr. Devdas Shetty, University of Hartford, Connecticut, USA

Dr. Hamid Seifoddini, University of Wisconsin-Milwaukee, USA

Dr. Robert de Souza, The Logistics Institute – Asia Pacific, Singapore

Dr. Gündüz Ulusoy, Sabanci University, Istanbul, Turkey

Dr. Hari Agung Yuniarto, Universitas Gadjah Mada, Indonesia

Dr. Li Zheng, Tsinghua University, China

Dr. Henk Zijm, Dutch Institute for Advanced Logistics, University of Twente, Netherlands

**Industry Committee**

Dr. Zeki Ayağ, Kadir Has University, Turkey  
Abdullah Y Dhafer, Aramco, Saudi Arabia  
Sameh Moh. Nour El-Din A-Razek, Al Ezz Dekheila Steel Co., Alexandria, Egypt  
Dr. Kenichi Funaki, Hitachi, Yokohama, Japan  
Dr. Qingwei Li, Eastman Chemical Company, USA  
Ali Massaeli, National Iranian Gas Company, Iran  
Alberto M. Merlo, Centro Ricerche Fiat, Torino, Italy  
Paul Moore, International Mining, England, UK  
Dr. Gerard O'Connor, Adelaide and Meath Hospital, Dublin, Ireland  
Mrs. Banu Ozkeser, R&D Team Leader, Temsa Global R&D Center, Turkey  
Joseph Paris, XONITEK Corporation, New York, USA

**Track Chairs****Artificial Intelligence**

Dr. Hassina Nacer Talantikite, University A/Mira, Algeria  
Dr. Karima Adel-Aissanou, Bajaia University, Algeria

**Automation and Control**

Dr. Behrooz Arbabshirani, Isfahan University of Technology, Iran  
Ghulam Yasin Shaikh, Mehran University of Engineering & Technology, Pakistan

**Case Studies**

Dr. Gulnara Abitova, L. N. Gumilev Eurasian National University, Kazakhstan

**Computer and Information Systems**

Dr. Khawaja Khurram, Deakin University, Australia

**Construction Management**

Dr. Doh Shu Ing, Tunku Abdul Rahman University – Perak Campus, Malaysia

**E-Business and E-Commerce**

S. M. Tofayel Ahmad, Bangladesh Bank, Dhaka, Bangladesh  
Rahat Uddin, Bangladesh Bank, Dhaka, Bangladesh

**Energy**

Dr. Bonfils Safari, National University of Rwanda, South Province, Rwanda  
Dr. Ilham Kissani, Al Akhawayn University, Morocco

**Engineering Economy**

Dr. Mario Fagnoli, University of Rome "La Sapienza", Italy  
Dr. Ali Mostafaeipour, Yazd University, Yazd, Iran

**Engineering Education**

Dr. Seema Singh, Delhi Technological University, India

**Engineering Management**

Dr. Abdul Talib Bon, Universiti Tun Hussein Onn Malaysia  
Syeda Asiya Zenab Kazmi, Vaasa University, Finland

**Facilities Planning and Management**

Dr. Zeki Ayağ, Kadir Has University, Turkey

**Healthcare Systems**

Dr. Victoria Jordan, University of Texas MD Anderson Cancer Center, Houston, TX, USA

**Human Factors and Ergonomics**

Dr. Mohsen Alardhi, College of Technological Studies, Kuwait  
Dr. Rosemary Seva, De La Salle University, Manila, Philippine

**IE/OM in Asia**

Dr. Kamran Yeganegi, Islamic Azad University – Zanjan, Iran

**Inventory Management**

Dr. Soroor Alkhafaji, Baghdad University, Iraq  
Dr. Salvatore Miranda, University of Salerno, Italy

**Lean and Six Sigma**

Abdullah Y Dhafer, Aramco, Saudi Arabia  
Dr. Bernardo Villarreal, Universidad de Monterrey, Mexico



**Logistics Management**

Dr. Aniruddha Bhattacharjya, Amrita Vishwa VidyaPeetham University, Karnataka, India

**Manufacturing and Design**

Dr. Ramy Harik, Lebanese American University, Lebanon

**Modeling and Simulation**

Dr. Ali ElKamel, University of Waterloo, Canada

Dr. William Msekiwa Goriwondo, National University of Science and Technology (NUST), Zimbabwe

**Operations Management**

Dr. Noorliza Karia, Universiti Sains Malaysia

**Operations Research**

Dr. Kamrul Ahsan, Victoria University, Melbourne, Australia

Dr. Jinwoo Park, Seoul National University, South Korea

**Production Planning and Management**

Dr. Jose Arturo Garza-Reyes, University of Derby, United Kingdom

Dr. Karl Inderfurth, Otto-von-Guericke University Magdeburg, Germany

**Project Management**

Dr. Wan Fauziah, Universiti Tun Hussein Onn Malaysia

**Quality Control and Management**

Dr. Valerie Cook, Penn State University – Erie, USA

Dr. Paulo Sampaio, University of Minho, Portugal

**Reliability and Maintenance**

Dr. Andy Pandian, University of Wisconsin – Stout, USA

**Service Systems and Service Management**

Dr. Victor Esteves, Federal University of Rio de Janeiro, Brazil

Dr. Ing. Maria Grazia Gnoni, University of Salento, Lecce, Italy

**Supply Chain Management**

Dr. Md. Mamun Habib, American International University – Bangladesh

**Sustainability and Green Systems**

Dr. Fazleena Badurdeen, University of Kentucky – Lexington, USA

**Systems Engineering**

Dr. Umar Al-Turki, King Fahd University of Petroleum and Minerals, Saudi Arabia

Dr. Samuel John, Polytechnic of Namibia, Windhoek, Namibia

**Technology Management**

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

Dr. Elkanah Oyetunji, Lagos State University, Lagos, Nigeria

**Technical Committee**

Dr. A.O. Adewumi, University of KwaZulu-Natal, South Africa

Dr. Kondo H. Adjallah, Paul-Verlaine University, France

Dr. Abdollah Aghaie, K.N. Toosi University of Technology, Iran

Dr. Md. Yeakub Ali, International Islamic University, Malaysia

Dr. Kuchkarov Atamurat, Uzbekistan National University, Uzbekistan

Dr. Behnam Bahrami, Eastern Mediterranean University, Famagusta, Cyprus

Dr. D. K. Banwet, IIT-Delhi, India

Dr. Mahdi Bashiri, Shahed University, Iran

Dr. Vladimir Beresnev, Sobolev Institute of Mathematics, Russia

Dr. Miguel Sanz Bobi, Comillas Pontifical University, Spain

Dr. Nejib Chouaibi, Polytechnic School of Tunisia, Tunisia

Dr. Mohammad Ishak Desa, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

Dr. Omar Elmabrouk, Benghazi University, Libya

Dr. Dinusha Gamage, University of Moratuwa, Sri Lanka

Dr. Rodrigo Garrido, Universidad Adolfo Ibaez, Chile

Dr. Vassilis Gerogiannis, Department of Project Management, Greece

Dr. Jahara bint Ghani, UKM, Malaysia

Dr. Ravi Gor, St. Kabir Institute of Professional Studies, Ahmedabad, India

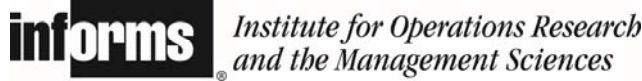
Dr. Kannan Govindan, University of Southern Denmark, Denmark

Dr. Maruf Hasan, University of New South Wales, Australia  
 Dr. Ahmed Kadhim Hussein, Babylon University, Iraq  
 Dr. Brigitte Jaumard, Concordia University, Canada  
 Dr. Shahrul B. Kamaruddin, Universiti Sains Malaysia  
 Dr. Francis Leung, City University of Hong Kong, China  
 Dr. Boudouda Malik, University of Champagne-Ardenne, France  
 Dr. Ilias Mamat, Quest International University Perak, Ipoh, Perak, Malaysia  
 Dr. Fulufhelo Masithulela, University of South Africa, Johannesburg, South Africa  
 Dr. Yuan Xue Ming, SIMTech: Singapore Institute of Manufacturing Technology; Singapore  
 Dr. Vladimir Modrak, TUKE, Slovakia  
 Dr. Ali Mostafaeipour, Yazd University, Iran  
 Dr. Norhamidi Muhamad, UKM, Malaysia  
 Dr. Michael Mutingi, University of Botswana, Botswana  
 Dr. Arun N. Nambiar, California State University – Fresno, USA  
 Dr. Cecilia Nembou, Divine Word University, Papua New Guinea  
 Dr. Sawat Pararach, Thammasat University, Thailand  
 Dr. Eui H. Park, North Carolina A&T State University, USA  
 Dr. Mohd Abdur Rashid, University Malaysia Perlis (UniMAP), Malaysia  
 Dr. Raja Zuraidah raja Mohd Rasi, Universiti Tun Hussein Onn Malaysia  
 Dr. Syed Asif Raza, Qatar University, Qatar  
 Dr. Nubia Milena Velasco Rodriguez, Universidad de Los Andes, Colombia  
 Dr. Md. Shamsuzzaman, University of Sharjah, UAE  
 Dr. Abdussalam Shibani, Coventry University, UK  
 Dr. Sarbjit Singh, National Institute of Technology, Jalandhar, Punjab, India  
 Dr. Gopalan Srinivasan, University of New Brunswick, Canada  
 Dr. Balan Sundarakani, University of Wollongong in Dubai, UAE  
 Dr. Theodore B. Trafalis, University of Oklahoma, USA  
 Dr. Vladimir I. Tsurkov, Russian Academy of Sciences, Moscow, Russia  
 Dr. Hui-Ming Wee, Chung Yuan Christian University, Taiwan  
 Dr. Yong Yin, Yamagata University, Japan  
 Dr. Suhaiza Hanim Zailani, University Malaya, Malaysia

### Submission Received from the Following Countries / Territories

- |                           |                 |                        |                                |
|---------------------------|-----------------|------------------------|--------------------------------|
| 1. Algeria                | 18. Egypt       | 36. Lebanon            | 52. South Africa               |
| 2. Australia              | 19. El Salvador | 37. Libya              | 53. South Korea                |
| 3. Azerbaijan             | 20. Fiji        | 38. Malaysia           | 54. Spain                      |
| 4. Bahrain                | 21. Finland     | 39. Mexico             | 55. Sri Lanka                  |
| 5. Bangladesh             | 22. France      | 40. Morocco            | 56. Sweden                     |
| 6. Belgium                | 23. Germany     | 41. Netherlands        | 57. Taiwan                     |
| 7. Bosnia and Herzegovina | 24. Ghana       | 42. Nigeria            | 58. Thailand                   |
| 8. Botswana               | 25. Hungary     | 43. Oman               | 59. East Timor                 |
| 9. Brazil                 | 26. India       | 44. Pakistan           | 60. Turkey                     |
| 10. Brunei Darussalam     | 27. Indonesia   | 45. Papua New Guinea   | 61. Uganda                     |
| 11. Bulgaria              | 28. Iran        | 46. Philippines        | 62. United Arab Emirates (UAE) |
| 12. Canada                | 29. Iraq        | 47. Portugal           | 63. United Kingdom (UK)        |
| 13. Chile                 | 30. Italy       | 48. Qatar              | 64. United States (USA)        |
| 14. China                 | 31. Japan       | 49. Russian Federation | 65. West Bank and Gaza         |
| 15. Colombia              | 32. Jordan      | 50. Saudi Arabia (KSA) | 66. Zimbabwe                   |
| 16. Costa Rica            | 33. Kazakhstan  | 51. Singapore          |                                |
| 17. Czech Republic        | 34. Kuwait      |                        |                                |
|                           | 35. Latvia      |                        |                                |

## Sponsors



## Exhibitors

<p><b>Advent2 Labs</b> <i>Your Partner in Improvement</i></p> <p><a href="http://www.advent2labs.com">www.advent2labs.com</a></p> <p><b>Advent2 Labs was established is to help its client to seek continuous improvement in their business operation.</b></p> 	<p> <b>Leave a Nest</b></p> <p><a href="http://lne.com.sg">lne.com.sg</a></p> <p>Leave a Nest Co. Ltd, is a Science Venture Company started by 15 graduate students 12years ago with the vision is to promote the advance of Science &amp; Technology (S&amp;T) for global happiness. Specifically, we aspire to take in the following 3 areas:</p> <ol style="list-style-type: none"> <li>1) To provide turn-key solutions for the transfer and commercialize of S&amp;T</li> <li>2) To be the leading company for S&amp;T Education</li> <li>3) To be the hub for training S&amp;T talents</li> </ol> <p>For inquires, <a href="mailto:info@lne.st">info@lne.st</a></p>	<p><b>PROLIM</b></p> <p>IT Consulting . PLM . Engineering Services</p> <p><a href="http://www.prolim.com">www.prolim.com</a></p> <p><b>PROLIM aims to help such corporations accomplish their PLM business goals with strong PLM Technology R&amp;D capabilities. PROLIM leadership has seen these complexities and has been part of such major solutions.</b></p>
--	--	--

## Meeting Rooms Floor Plan – Grand Hyatt Bali

